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LEGISLATIVE HISTORY

Public Law 473--77th Congress

Chapter 140--2d Session

S. 2282

TABLE OF CONTENTS

Digest of Public Law 473	1
Index and Summary of History on S. 2282	2

DIGEST OF PUBLIC LAW 473

PLANTING OF GUAYULE AND OTHER RUBBER-BEARING PLANTS FOR EMERGENCY AND DEFENSE USES.

Authorizes the Secretary to plant, or contract for the planting of, not in excess of 75,000 acres of guayule in the Western Hemisphere; to establish and maintain nurseries to provide seedlings for field plants; to purchase necessary equipment, facilities, and land for nurseries; to construct or operate, or contract for the operation of factories for the extraction of rubber from guayule and from chrysothamnus, and to maintain equipment for the harvesting, curing, transporting, and complete processing of guayule and chrysothamnus; and to carry on similar operations with respect to other rubber-bearing plants.

INDEX AND SUMMARY OF HISTORY OF S. 2282

December 10, 1941	Hearings: Senate, S. 2152.
December 17, 1941	H. R. 6262 was introduced by Rep. Anderson and was referred to the House Committee on Agriculture. Print of the bill as introduced. (Similar bill).
December 22, 1941	S. 2152 was introduced by Senator Downey and was referred to the Senate Committee on Military Affairs. Print of the bill as introduced. (Similar bill).
December 23, 1941	Senate Committee reported S. 2152 without amendment. S. Rept. 924. Print of the bill as reported.
January 5, 1942	S. 2152 was recommitted to the Senate Committee on Military Affairs. H. R. 6299 was introduced by Rep. Anderson and was referred to the House Committee on Agriculture. Print of the bill as introduced.
January 6, 1942	Hearings: Senate, S. 2152.
January 7, 1942	Senate Committee reported S. 2152 with an amendment. S. Rept. 935. Print of the bill as reported. Hearings: House, H. R. 6299.
January 12, 1942	Amendment proposed by Senator Danaher to S. 2152.
January 15, 1942	S. 2152 was debated and passed the Senate with amendments.
January 19, 1942	S. 2152 was referred to the House Committee on Agriculture. Print of the bill as referred.
January 27, 1942	House Committee reported S. 2152 with amendments. House Report 1685. Print of the bill as reported.
February 2, 1942	House Rules Committee reported H. Res. 427 for the consideration of S. 2152. House Rept. 1734. Print of the Resolution.
February 5, 1942	S. 2152 was debated in the House and passed as reported.
February 9, 1942	Senate agreed to the House amendments.
February 17, 1942	Vetoed. Veto message of the President of the U. S. Senate Document 182. S. 2282 was introduced by Senator Downey and was referred to the Senate Committee on Military Affairs. Print of the bill as introduced.

February 18, 1942	Senate Committee reported S. 2282 without amendment. Senate Report 1099. Print of the bill as reported.
February 19, 1942	S. 2282 was debated in the Senate and passed as reported.
February 23, 1942	S. 2282 was referred to the House Committee on Agriculture. Print of the bill as referred.
February 27, 1942	House Committee reported S. 2282 without amendment. House Report 1839. Print of the bill as reported.
February 28, 1942	S. 2282 was discussed in the House and passed as reported.
March 5, 1942	Approved. Public Law 473.

Page

STRATEGIC AND CRITICAL MATERIALS [GUAYULE RUBBER]

HEARING
BEFORE THE
COMMITTEE ON MILITARY AFFAIRS
UNITED STATES SENATE
SEVENTY-SEVENTH CONGRESS
FIRST SESSION
ON
S. 2152

A BILL TO PROVIDE FOR THE PLANTING OF 45,000 ACRES
OF GUAYULE IN ORDER TO MAKE AVAILABLE A
DOMESTIC SOURCE OF CRUDE RUBBER FOR
EMERGENCY AND DEFENSE USES

DECEMBER 10, 1941

Printed for the use of the Committee on Military Affairs



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WASHINGTON : 1941

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CONTENTS

	Page
Statement of—	
William H. Mason.....	2
Elmer W. Brandes.....	25
John Z. Anderson.....	36
Appendix A.....	41
John L. Collyer.....	42
W. S. Farrish and Frank A. Howard.....	56
E. R. Bridgewater.....	62



STRATEGIC AND CRITICAL MATERIALS

[GUAYULE RUBBER]

WEDNESDAY, DECEMBER 10, 1941

UNITED STATES SENATE,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 2:30 p. m., pursuant to call, in the committee room, the Capitol, Senator Austin and Senator Robert R. Reynolds (chairman) presiding, to consider the rubber situation.

(The bill S. 2152, subsequently introduced by Mr. Downey on December 22, 1941, follows:)

[S. 2152, 77th Cong., 1st sess.]

A BILL To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement the right to operate under patents, now held by the Intercontinental Rubber Company or any of its subsidiaries, relating to the planting of guayule or the extraction of rubber therefrom, and to acquire such properties, processes, records, and data as are necessary to such operation;

(2) To plant, or contract for the planting of, not in excess of forty-five thousand acres of guayule in areas in the United States where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment and facilities;

(3) To acquire by purchase, lease, or other agreement rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the United States where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct, operate, or contract for the operation of, factories for the extraction of rubber from guayule; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber manufactured from guayule, and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule and to obtain and hold patents on such new processes; and

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of forty-five thousand acres of guayule inside the United States.

SEC. 2. (a) The Secretary may appoint such employees as may be necessary for carrying out the provisions of this Act, subject to the civil-service laws, and the rates of compensation of such employees shall be fixed in accordance with the Classification Act of 1923, as amended.

(b) The Secretary shall determine the character and necessity for the expenditures under this Act and the manner in which they shall be incurred, allowed, and paid, without regard to the provisions of any other laws governing the expenditure of public funds, and such determinations shall be final and conclusive upon all other officers of the Government.

(c) The Secretary shall at all times maintain complete and accurate books of account and shall submit, as soon as practicable after January 1 of each year, an annual report to Congress of his activities under this Act. The General Accounting Office shall audit the financial transactions of the Secretary under this Act once each year for the sole purpose of making a report to Congress, together with such recommendations as the Comptroller General of the United States may deem advisable; *Provided, however*, That such report shall not be made until the Secretary shall have had reasonable opportunity to examine the report, to point out errors therein, explain any criticism contained therein, and to file a statement which shall be submitted by the Comptroller General with his report;

(d) All money made available to carry out this Act may be deposited with the Treasurer of the United States, in any Federal Reserve bank, or in any bank approved by the Secretary of the Treasury and shall be subject to withdrawal at any time;

(e) The Secretary may delegate any of the powers and duties conferred on him by this Act to any agency or bureau of the Department of Agriculture;

(f) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers, and employees thereof in carrying out the provisions of this Act;

(g) The Secretary may allot to bureaus and offices of the Department of Agriculture or transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this Act any funds made available to him under this Act.

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this Act. Any such amounts appropriated and any funds received by the Secretary under this Act shall remain permanently available for the purposes of this Act without regard to any other laws concerning availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

Present: Senators Reynolds (chairman), Schwartz, Downey, Chandler, Kilgore, Austin, Bridges, Gurney, and Lodge.

Also present: Hon. Jesse H. Jones, Secretary of Commerce.

Senator AUSTIN. Senator Reynolds will be here presently, Senator Downey, so I would suggest that you go ahead.

Senator DOWNEY. Mr. Mason, will you come forward and testify?

Senator AUSTIN. Will you give your full name and address, please?

STATEMENT OF WILLIAM H. MASON, GENERAL TIRE & RUBBER CO. AKRON, OHIO

Mr. MASON. Wililam H. Mason, General Tire & Rubber Co., Akron, Ohio.

Senator DOWNEY. Your company, of course, is interested in the rubber question in the United States, Mr. Mason?

Mr. MASON. That is right.

Senator DOWNEY. Have you, either yourself, personally, or your company, any financial or direct interest in this guayule rubber in California?

Mr. MASON. No, sir.

Senator DOWNEY. Just as briefly as you can, Mr. Mason, I would like to have you tell, to the members of the committee and to the Secretary, what you know about the possibility of guayule rubber.

Mr. MASON. William O'Neill, president of the company whom I represent here, and I have felt that guayule was the quickest way we could get rubber—

Senator AUSTIN (interposing). How do you spell that?

Mr. MASON. G-u-a-y-u-l-e.

Senator AUSTIN. Thank you.

Mr. MASON (continuing). I will explain that guayule is a deciduous shrub brought to this country in 1912 and is found growing in Mexico, wild. It was found previous to that time, and in the revolution of 1912 it was brought to this country. There are several hundred varieties, and they have been working on the shrub in Salinas, Calif. It is a shrub that grows in that section of the country, and, according to its age, its content of rubber increases, beginning at the end of the first year and continuing on with an increase each year.

The Salinas area, in California, has been growing this shrub for 30 years and they now have some 7,000 acres growing, and have seed enough, according to Dr. W. B. McCallum, head of the rubber plant—according to him they have enough seed to immediately plant 110,000 acres.

Senator AUSTIN. Who are "they"?

Mr. MASON. The Intercontinental Rubber Co., which is a company which started way back in—I cannot give you the exact date, but they produce guayule rubber, and import most of their product from Mexico and sell it to the Goodrich Rubber Co., in this country, at the rate of about 100 tons a month.

Now, there is not enough grown here to get a commercial trade on it, and the reason is that, in normal times, it is not practical, inasmuch as the cost of growing it is much greater than that of tree rubber.

Senator AUSTIN. Are you interested in this?

Mr. MASON. Only as a means of getting rubber, not financially or any other way. In no way do we have an interest other than in getting the rubber.

Senator AUSTIN. Have you a contract which authorizes you to command the output?

Mr. MASON. No, sir; and it would be Mr. O'Neill's suggestion, in that regard, that the Government handle it. We do not have any possible interest except to get a rubber supply.

Senator DOWNEY. Mr. Mason, will you continue and tell the chairman to what extent, if any, the shrub has been improved in rubber content through this development?

Mr. MASON. Whether there is cross-breeding, or whether it is through the selection of seed, the normal rubber content of the product brought in now is about 12 percent, and guayule growing in Salinas is getting as high as 23 percent, and Dr. McCallum told me, 2 weeks ago, that he got as high as 30 percent rubber from such shrubs as these [indicating].

Senator AUSTIN. You say that is 30 percent rubber?

Mr. MASON. Not quite 30 percent there; I would say 22 to 23 percent of that shrub is rubber, but he thinks it can be developed to a point where it will get to 30 percent.

Senator DOWNEY. What about the climatic conditions under which the shrub grows?

Mr. MASON. The shrub is grown, or can be grown—and the Department of Agriculture will bear this out—in California, Texas, Arizona, and New Mexico, and they believe it may be grown in other States. It demands several things: one, a long dry spell during which time the rubber content increases. They have tried to grow it in such States as Georgia, and while they get maybe magnificent plants, nevertheless it all goes to foliage and does not have a high rubber content, and in commercial production, what is necessary is the heavy rubber content.

Senator DOWNEY. What about temperature conditions?

Mr. MASON. They have not grown it any place where the temperature has been lower than 5°. In the Big Bend country it got as low as 25° and did not kill the plant, but whether or not the cold would kill the plant at a temperature lower than that, we do not know; but it can be grown, as has been seen, where it does not get lower than 15° or 20°.

Senator DOWNEY. It seldom goes below 22° at Salinas, is that right?

Mr. MASON. That is true, sir.

Senator DOWNEY. What about the amount of land adaptable to this plant culture around Salinas, is there an unlimited amount?

Mr. MASON. In California, not only around Salinas, but in southern California there is any amount of land which seems to be particularly suited to guayule.

Senator DOWNEY. Mr. Mason, do you know how many acres are planted down there?

Mr. MASON. I understand there are 7,000 acres planted. That was about 2 weeks ago and I did not see them, but I was told they had 7,000 acres.

Senator DOWNEY. That is, 4 years old?

Mr. MASON. Most of them were 4 years old, although some were planted last year, and are just 1 year old.

Senator DOWNEY. How much rubber, per acre, would you expect to be yielded from shrubs 4 years old?

Mr. MASON. That runs 2,000 and 2,500 pounds per acre, at 4 years.

Senator AUSTIN. That is, taking in the whole shrub?

Mr. MASON. Yes, sir; everything is taken except the foliage. The plant is chopped up and put through a milling process, a mill which costs about \$250,000 for the one they have in Salinas now, and they say it can be duplicated for much less than that.

Senator DOWNEY. Have they a processing mill?

Mr. MASON. Yes, sir; there is one out there now.

Senator DOWNEY. In your opinion, is it feasible to extract the rubber from the plant at the end of 1 year?

Mr. MASON. I am not a qualified expert on that, but Dr. McCallum, who has studied the growing of guayule plants for the past 30 years, says that the most economical way to produce guayule rubber is over a period of 4 or 5 years, in a 4- or 5-year cycle. He says, however, that there is a rubber content of around 6 percent in the plant at the end of the first year which could be taken out, just as at the end of 4 or 5 years, but he believes that it would cost more. On the other hand, Dr. David Spence, of Stanford University, very highly regarded as a rubber chemist and who was head of Mr. Baruch's Rubber Research Department in the last war, under the Industrial Board, believes that the

cheapest way to get guayule rubber is to harvest it at the end of the first year.

Senator DOWNEY. Do you know what reason he gives?

Mr. MASON. Because you can plant it broadcast, much more thickly than otherwise, and he maintains that you can get a thousand pounds of rubber per acre by planting and harvesting at the end of the first year, rather than at the end of a 5-year cycle, and according to his reasoning, that would give you 5,000 pounds per acre over a period of 5 years, instead of the 2 to 2½ thousand pounds, if you let it stand for that period of 5 years.

Senator DOWNEY. Now, Mr. Mason, when is this shrub planted, what time of the year?

Mr. MASON. Well, I understand that it can be planted in January, in order to take advantage of the winter rains. They have an irrigation system that is used, too, so that it could be planted in California at any time of the year.

Senator DOWNEY. That is the preferred time?

Mr. MASON. That is the time it is set out, ordinarily, as seed.

Senator DOWNEY. What seeds are available for planting of a big crop?

Mr. MASON. The entire supply is in the hands of Intercontinental, and they said that they had seeds for 45,000 acres, according to the report made to the Tariff Commission in September. Since that time, they have harvested their seed, harvested a new crop, and they have now seeds for 110,000 acres, according to Dr. McCallum, head of the company.

Senator DOWNEY. If your figures are correct, if 110,000 acres could be planted and harvested at the end of 1 year, you could expect to get 55,000 tons?

Mr. MASON. If Dr. Spence's figures are right.

Senator DOWNEY. And in 4 or 5 years, you could get twice that many tons?

Mr. MASON. At least twice that much, at the end of 4 years.

Senator DOWNEY. Now, if these seeds were planted to their full amount and you had your 110,000 acres of the shrub, then what seeds could be yielded by that?

Mr. MASON. A ratio of 10 to 1.

Senator DOWNEY. Ten to one?

Mr. MASON. Yes, sir.

Senator DOWNEY. So, with your basic start of 110,000 acres planted, you would have practically unlimited seeds?

Mr. MASON. That is right, sir.

Senator DOWNEY. And you have unlimited land available?

Mr. MASON. Yes, sir; as to the land there is any amount of acreage that could be used for it.

Senator DOWNEY. Under this planting that might take place in January, when would you expect to harvest your seeds?

Mr. MASON. You could harvest within 8 months after the original planting.

Senator DOWNEY. Then, you could expect to harvest the seeds in 8 months and plant them the following January?

Mr. MASON. Yes; and in 8 months you should have a big supply of rubber, and it is, of course, chemically real rubber. The tree

rubber, of course, will have about 4 percent resin, and guayule has 19 or 20 percent resin content, and in the old days there was the problem of getting that resin out as there was no use for it, but the expense of a deresinator was so great it was not feasible; however, at the present time deresinating is such a simple process that the by-product will pay for it.

Senator DOWNEY. Mr. Mason, can you tell us how the product compares in quality with crude or raw rubber?

Mr. MASON. The best information we have on that, which is the same information the Tariff Commission has, is that it will, in a tire, say, give 90 percent of the wear which may be obtained from tires made from the best tree rubber, or, a second grade of Hevea rubber.

Senator LODGE. How do you spell that guayule?

Mr. MASON. G-u-a-y-u-l-e.

Senator DOWNEY. Mr. Mason, you spoke about a record made before the United States Tariff Commission?

Mr. MASON. Yes, sir.

Senator DOWNEY. And you handed me such a report?

Mr. MASON. Yes, sir.

Senator DOWNEY. Mr. Chairman, I hold in my hand a copy of the "Report of the United States Tariff Commission on Rubber, Possibilities of Producing Rubber in the United States and Rubber Conservation," dated Washington, September 1941.

Is that the document to which you referred?

Mr. MASON. Yes, sir.

Senator DOWNEY. Mr. Chairman, I would like to offer this document.

Senator AUSTIN. Admitted.

(The document referred to is as follows:)

RUBBER—POSSIBILITIES OF PRODUCING RUBBER IN THE UNITED STATES AND RUBBER CONSERVATION

INTRODUCTION

For many years this country has been dependent almost entirely on the Far East for rubber. Of the 650,000 long tons of crude rubber consumed in the United States in 1940, approximately 97 percent came from that area. United States imports of crude rubber, chiefly Hevea rubber, amounted in 1940 to 818,000 long tons, valued at \$318,000,000. Stocks of crude rubber in the United States are sufficient to operate the rubber-manufacturing industry for only about 8 months at the present rate of consumption.

The great importance of rubber in our civilian national economy is a familiar fact. Defense preparations require large quantities of rubber, which is classified by the Army and Navy Munitions Board as a strategic material. About three-fourths of the rubber consumed in the United States goes into tires and inner tubes, which are indispensable, both for civilian and military use. Other highly important uses for rubber are in medical and surgical articles, water hose, electrical insulation, and gas masks.

If a shortage of shipping or other causes should greatly reduce the quantity of rubber obtainable from the Far East, serious problems would at once arise. For this reason the Tariff Commission has just completed a survey as to the feasibility of producing rubber in this country and as to means of conserving supplies. Representatives of the Commission have visited the principal rubber-manufacturing centers of the United States and the principal domestic regions in which guayule rubber has been grown experimentally and have obtained information from the best-informed men in the industry.

CONCLUSIONS

There are several ways in which a shortage of rubber imports from the Far East, if it should occur, could be relieved at least in part. These include: (1) Increased production of crude rubber in Latin America and increased importation from that source; (2) more efficient use of imported crude rubber—conservation of available supplies; (3) increased reclaiming of used rubber; and (4) increased production of synthetic rubber and of guayule rubber in the United States.

The possibilities of increasing the production of crude rubber in Latin America have been discussed in a previous report of the Tariff Commission.¹ It is pointed out in that report that, since it requires about 7 years to bring a rubber tree into bearing, any emergency arising in the near future could not be met by increased production in Latin America.

Of the numerous methods of conserving the use of new rubber, the most important is by increased retreading of tires. As much as 115,000 long tons of rubber might be saved yearly by this method, with little new investment of capital in retreading plants.

Large quantities of reclaimed rubber are already being produced, and the quantity could be increased materially within a short time by reducing the number of varieties produced and by not carrying the refining of reclaimed rubber so far as is now the practice. Reclaiming could be increased still further within a year or two by the building of new plants. However, natural rubber cannot be reclaimed repeatedly without marked deterioration in quality. A drastic shortage of imports for any considerable length of time, as distinguished from a short time, could not be relieved by reclaiming.

Present production of synthetic rubber in the United States is insignificant, and although new plants are being erected the total capacity at the end of 1941 will be only about 20,000 long tons annually. The total cost of constructing plants, including plants for supplying the required component materials, to produce 100,000 long tons of synthetic rubber annually would be from 75 to 100 million dollars, and the construction would take considerable time, especially since it would require large quantities of materials of which shortages exist.

Rubber is produced from the guayule shrub, which can be grown in semiarid regions of California and other far Southwestern States. The plant can be harvested within 1 year after planting, but it is more economical to let it continue to grow for several years. A shortage of seed limits the rapidity with which guayule production could be increased. It would require several years to make the guayule shrub an important commercial source of rubber. Probably about \$20,000,000 of capital investment would be required for every 100,000 long tons of yearly productive capacity.

Reclaimed rubber, synthetic rubber and guayule rubber are inferior to ribbed smoked sheet No. 1, which is a high grade of Hevea rubber and the grade used most extensively in the United States, although synthetic rubber is superior to all grades of Hevea for certain minor uses. Reclaimed rubber can be used satisfactorily in articles not requiring a very high grade of material. Guayule rubber, after being deresinated, is equal in quality to the lower grades of Hevea rubber and can be used in the manufacture of practically all rubber goods. Synthetic, reclaimed, and guayule rubber can be used quite satisfactorily in most articles when mixed with Hevea rubber.

Such information as is available indicates that neither synthetic nor guayule rubber can be produced, under present conditions, except at a cost much higher than that of crude rubber grown in the Far East. If their production is developed on a large scale to meet or forestall an emergency, the producers probably would not be able to compete with the Far Eastern product when the emergency is over. If it is considered necessary to undertake their production on a large scale, sufficient Government aid will presumably have to be extended to protect producers against ultimate loss of invested capital.

SUMMARY OF INFORMATION OBTAINED IN SURVEY

Reclaimed rubber.—In 1940 the domestic production of reclaimed rubber amounted to 210,000 long tons. Operating practically at full plant capacity, the industry is now reclaiming rubber at the rate of more than 270,000 long tons

¹ The Foreign Trade of Latin America, pt. III, vol. 2, p. 393.

per year. Leaders of the industry state, however, that they could increase production 20 percent by reducing the number of varieties to 3 or 4 and by not carrying the refining of reclaimed rubber so far as is now the practice. More than 100 varieties, most of which are not essential, are now being produced. Reducing the number of varieties and decreasing the degree of refinement would permit a production of approximately 340,000 long tons a year.

The capacity of the reclaimed rubber industry could, of course, be increased by erecting additional plants. Production would be limited by the amount of scrap rubber which becomes available yearly.² Various estimates have been made as to the total quantity of scrap rubber that could be collected annually, the estimates ranging from 400,000 to 800,000 long tons.

Available data indicate that at least 500,000 long tons could be collected. This tonnage of scrap rubber would produce about an equal tonnage of reclaimed rubber.

The cost of erecting additional reclaiming facilities would be about \$10,000,000 for every 100,000 long tons of yearly capacity. Under present conditions and with the benefit of priorities for necessary materials and equipment, it would require from 18 to 24 months to construct and equip a sufficient number of plants to produce 100,000 long tons yearly.

The three most important considerations in selecting a site for a rubber reclaiming mill are the availability of scrap rubber, the availability of labor, and the availability of power. If additional plants are built, trade experts suggest that a good geographical distribution from the point of view of these three factors would be one plant in the Midwest, one in the South, and one on the Pacific coast. Three good-sized plants might well have a combined capacity of 150,000 long tons. It is less expensive to transport reclaimed rubber to rubber manufacturing centers, such as Akron, Ohio, than to transport the scrap rubber (principally old tires) used in making reclaimed rubber.

Except for use in certain types of rubber goods, reclaimed rubber is not so satisfactory as natural Hevea rubber (the most common type entering commerce). Reclaimed rubber is comparatively soft and lacks the "nerve" of Hevea. In the manufacture of tires it can be mixed with Hevea rubber and used satisfactorily in rubberizing fabric plies and in sidewalls but it lacks the resistance to abrasion required for extensive use in treads.

Ordinarily, a 6:00x16³ tire weighing 21 pounds will contain about 12 pounds of Hevea rubber. Members of the trade state that by partial substitution of reclaimed rubber a fairly good tire of this size can be made with only 5½ pounds of Hevea rubber distributed as follows: 3½ pounds in tread, 1 pound in sidewalls and undertread, and 1 pound in fabric plies. It is said that this tire gives a mileage approximately three-fourths that of a tire containing 12 pounds of natural rubber. A more moderate substitution of reclaimed rubber for crude rubber would result in an increase in mileage.

Natural rubber cannot be reclaimed many times. Its quality is reduced considerably with each reclaiming. Therefore, this country could not rely on reclaimed rubber alone if imports of crude rubber were cut off for any prolonged period. Reclaimed rubber would serve as a stopgap only until the production of synthetic rubber and guayule rubber should become of consequence.

Stocks of reclaimed rubber on August 31, 1941, amounted to about 39,000 long tons.⁴

The cost of producing reclaimed rubber is relatively small. This is seen from the fact that reclaimed rubber for use in tires has been sold at 6 to 7¾ cents a pound for the past 2 or 3 years.

Synthetic rubber.—Synthetic rubber has been widely publicized as a substitute for Hevea rubber. In 1940 the domestic production of synthetic rubber amounted to only about 4,000 long tons. Production in 1941 may be twice that figure, and by the end of the year the total productive capacity may be 20,000 long tons.

Synthetic rubber has been produced only since about 1931, and practically all the output has been made from acetylene obtained from coal and limestone and from hydrochloric acid obtained from salt. This synthetic rubber has been sold at 65 cents to \$1 a pound and it has been used only for special purposes, in which

² There is disagreement among members of the trade as to whether substantial quantities of scrap rubber uncollected in past years have accumulated in outlying regions. Scrap collectors in these regions state that accumulations are negligible.

³ This is the most common size of tire. It is used on the Ford, Plymouth, Chevrolet, Dodge, and Pontiac automobiles.

⁴ The Rubber Manufacturers Association.

resistance to oil, heat, or excessive sunlight is desired. In these uses it is much superior to Hevea rubber.

Authorities on the subject think that if in the future synthetic rubber is produced on a large scale it will be made from butadiene, which in turn is made from petroleum products in combination with styrene, acrylonitrile, or some of the olefins. If synthetic rubber is produced from butadiene on a large scale, it will be necessary to expand greatly the production of this material. Presumably, plants for manufacturing butadiene would be erected near oil refineries or oil fields, and the butadiene would be shipped to synthetic rubber plants near rubber-consuming centers. It would also be necessary to construct plants for the production of styrene, acrylonitrile, or olefins. Styrene or acrylonitrile would require chlorine or nitrogen, and both of these are now on the priorities list by reason of the strong demand for them in defense uses. The total cost of constructing plants for the production of butadiene, styrene, acrylonitrile, or olefins and synthetic rubber would range from seventy-five to one hundred million dollars for every 100,000 long tons of yearly synthetic-rubber capacity. A single synthetic-rubber plant having a capacity of 20,000 long tons might be erected and equipped in 18 months, but because of the difficulty in obtaining steel and chemical equipment, it appears that from 3 to 5 years would be required to construct and equip sufficient number of plants to supply the rubber requirements of the United States. Priorities would be necessary on steel and chemical equipment for erecting plants.

After the war there would be serious readjustments if imports of low-priced crude rubber from the Far East were resumed. Members of the trade think that probably synthetic rubber could be produced in quantity from oil products at a cost of about 25 cents a pound, or perhaps less. The cost of producing crude rubber in the Far East, in the absence of controlled output, is reported at 4 to 10 cents a pound, and since 1931 prices in New York have ranged from 2½ to 27 cents a pound. The Government is now purchasing all the crude rubber imported into the United States and is selling it delivered in New York at 22½ cents a pound.

Synthetic rubber of the butadiene type was not produced in the United States until 1940, and it is now produced only in negligible quantities. Tire companies have experimented with this rubber and have had considerable difficulty in using it. They have found, however, that they can make fairly good tires by mixing synthetic rubber in equal parts with natural rubber (Hevea or guayule).

Germany is using large quantities of butadiene synthetic rubber (made from coal and limestone rather than from oil products) in the manufacture of tires, but the Germans were 2 years learning how to use it. The cost of producing synthetic rubber in Germany is reported at about 40 cents a pound. Some passenger-car tires are made exclusively from synthetic rubber in Germany, but the lack of sufficient adhesiveness is understood still to present difficulties in the manufacture of large tires requiring many plies.⁵

In the manufacture of some tires the Germans use synthetic rubber in the treads, reclaimed Hevea rubber in the side walls and plies, and Hevea rubber in the inner tubes.⁶

Guayule rubber.—Guayule is a rubber-producing, desert shrub which is native to North Central Mexico and the Big Bend area of Texas. In 1912, the year of greatest output, Mexico produced 10,000 long tons of guayule rubber. After 1912 the Mexican output declined, and in 1940 amounted to about 4,000 long tons. Production facilities are being increased and production in 1942 may amount to 7,000 long tons. The entire Mexican production is from wild guayule, and the output is now restricted by the Mexican Government in order to prevent extinction of the shrub. Most of the guayule rubber produced in Mexico is shipped to the United States.

For the past 30 years, the Intercontinental Rubber Co., whose principal business is producing rubber in the Far East and importing rubber, has cultivated guayule at its experiment station near Salinas, Calif., and at scattered points in Arizona and Texas. The company has about 1,000 acres under cultivation at Salinas where it produced about 225 long tons of rubber in 1940. After extensive tests the firm has selected high-yielding, disease-resistant strains of guayule. Also, it has devised special machinery for planting, cultivating, and harvesting the shrub. One machine with a crew of 14 men plants 15 acres in 1 day of 10 hours, 800 plants to the acre.

⁵ U. S. Bureau of Foreign and Domestic Commerce, Synthetic Rubbers Hold Unique Place in Industry, June 1941, p. 1.

⁶ Germany accumulated a large stock pile of Hevea rubber before the war, and has acquired additional supplies from occupied countries.

Guayule requires little cultivation and an annual rainfall of only 6 to 12 inches, depending upon soil and climate. The climatic and soil conditions of the Salinas and nearby valleys in California have been found especially suitable for growing guayule, but other States in the Southwest also have areas suited to guayule cultivation.

The guayule shrub may be harvested at any time between the ages of 1 and 30 years, the general practice being to harvest it at 4 years. If for any reason it is desired not to harvest the plant after 4 years, it may be left in the ground and in that way serve as a continually increasing reserve supply of rubber until the plant is 10 years of age. After growing for 10 years, guayule has a tendency to become gnarled. The shrub may be left in the ground for an additional 20 years but without any increase in rubber content. The entire shrub is taken from the ground at the time of the harvest and by a mechanical process the rubber is removed from the roots, stem, and large branches.

The cost of producing guayule rubber depends upon the age at which the plant is harvested. Starting with a cost of about 80 cents per pound of rubber when the plant is harvested at 1 year, the cost decreases for every year that the plant is in the ground until it is 7 years of age. After 7 years the carrying charges, principally interest on investment, exceed the increment in value. It appears that when the plant is harvested at the age of 4 years guayule rubber may be produced at a cost of 15 to 19 cents a pound, including the cost of land rental, preparing the land for planting, and all other costs incidental to producing the rubber, except interest on investment and the cost of deresinating.

Guayule rubber has a resin content of about 20 percent. For this reason underdesinated guayule rubber is suitable only for blending with Hevea rubber or for friction stocks (for use in manufacturing tire fabric plies, transmission belts, friction tape, etc). It is especially suited to use in rubberizing tire fabric plies, the production of which is very large. Mr. J. H. Doering of the Firestone Tire & Rubber Co. has written the most authoritative article on the use of underdesinated guayule rubber.⁷

After considerable testing, Mr. Doering found that tires made from underdesinated guayule rubber give a mileage 60 percent as great as tires made from Hevea ribbed smoked sheet No. 1.

However, when guayule rubber is deresinated it is of the same quality as the lower grades of Hevea rubber and can be used interchangeably with them. It is softer than Hevea ribbed smoked sheet No. 1. Practically all the large tire-manufacturing companies have tested deresinated guayule rubber, and it is reported that tires made from it give approximately 90 percent of the mileage given by tires made from ribbed smoked sheet No. 1. Most of the purchasing agents and research directors of these firms think that the Government should advance funds for the production of guayule rubber.

It appears that if substantial quantities of guayule rubber were deresinated, the cost of deresinating would not exceed 1 or 2 cents a pound. The solvent used in the process can be used several times, and the resins recovered probably could be sold.

The information available indicates that the capital investment for agricultural equipment, nurseries, buildings, maintenance shops, rubber extraction mills, and deresinating factories probably would amount to about \$20,000,000 for every 100,000 long tons of yearly productive capacity.

A shortage of planting material limits the quantity of rubber which could be produced from guayule in the next few years. If all the seeds available were planted immediately, there would be only enough seedlings to plant 45,000 acres of guayule shrubs in the spring of 1942. If 45,000 acres were planted in 1942 and harvested in 1943, they would yield a total of only about 1,500 long tons of deresinated rubber. If the 45,000 acres were not harvested until 1944, they would yield approximately 5,400 long tons. If harvested in 1946, they would yield about 21,300 long tons.⁸

In 1943 there could be made available sufficient seedlings to plant 450,000 acres. This acreage might yield 15,000 long tons if harvested in 1944; 54,000

⁷ J. H. Doering, Firestone Tire & Rubber Co., Guayule Rubber in Tires and Tubes—Service Tests in Which the Rubber was Exclusively Guayule, *Industrial and Engineering Chemistry*, 1934, vol. 26, p. 541.

⁸ For comparative purposes, about 650,000 long tons of crude rubber were consumed in 1940 in the United States.

long tons if harvested in 1945; or 213,000 long tons if harvested in 1947. Further plantings would be possible in 1944 and subsequent years.⁹

The production of guayule rubber would utilize land and migrant labor not now employed. Also, its production would not require, as in the case of synthetic rubber, large quantities of steel, chemicals, and chemical equipment, the demands for which are taxing the productive capacity of eastern factories.

Retreaded tires and rubber conservation.—If imports of crude rubber were to cease or be drastically curtailed, it would be necessary, as in the last war, to adopt drastic measures of conservation. For a short time in 1918, domestic manufacturers of rubber goods were limited to seven-sixteenths of the amount of crude rubber they had used in 1917. In addition, the production of some products was restricted and that of others was prohibited.

Considerable quantities of rubber could be saved by reducing the speed limits of motor vehicles and by substituting leather for rubber in transmission belts; leather for rubber in heels; oil or plastics for rubber in waterproof clothing; plastics for rubber in hard-rubber goods; wood or other materials for rubber in flooring, cotton, steel springs, hair, and natural sponges for rubber in sponge products; and various materials for rubber in toys and novelties. To be sure, the supplies of some of these substitutes are themselves limited, but not so limited as would be supplies of rubber if overseas sources should be shut off.

One of the best ways of conserving rubber in the event of a shortage would be by retreading more tires. At present there are about 4,000 retreading shops in the United States. A few of these are large, but by far the greater number are small. Each of the big tire-manufacturing companies has a chain of fairly large branch shops. About 6,000,000 tires were retreaded in 1940 and the forecast for 1941 is 7,000,000 tires. The capacity of existing retreading shops is about 10,000,000 yearly. This compares with an actual production in 1940 of approximately 60,000,000 new tires. Additional retreading shops could be established and equipped with relatively moderate capital investment.

The tread used in retreading tires is called camel back. The technique of applying camel back to tire carcasses generally requires that the camel back be softer than the tread used in a new tire, and for this reason retreaded tires give an average mileage approximately 80 percent that of new tires.

In retreading shops, tires are retreaded in special adjustable molds. However, a few firms manufacturing new tires have been studying retread potentialities in their factories in the event of a rubber shortage. These companies have concluded that about one-half of the old tires that are turned in or discarded at the time new tires are purchased could be retreaded in molds ordinarily used for making new tires. Assuming that 3,000,000 additional tires could be retreaded in established retreading shops and that 30,000,000 tires could be retreaded by tire manufacturers in molds ordinarily used for making new tires, a total of 33,000,000 additional tires could be retreaded yearly.

The quantity of crude rubber used in the manufacture of the average new tire is about 14 pounds. In retreading the average tire, about 8½ pounds of camel back are used, approximately 5 pounds of which are rubber. Assuming that retreaded tires give a mileage 80 percent that of new tires, approximately 115,000 long tons of crude rubber might be saved yearly by retreading an additional 33,000,000 tires.

A program of retreading 33,000,000 additional tires is about the maximum that could be attained. What is known as "excess fabric growth" would limit the number of tires retreaded in molds ordinarily used for making new tires. There are about 4 pounds of cotton plies in the average tire and these plies tend to shift or "grow" as the tire is used. If tires were retreaded on a large scale, it would be desirable to inspect them at service stations and not send them to tire-manufacturing companies for retreading unless they were suitable for retreading in the molds ordinarily used for making new tires. This practice is now followed in the United Kingdom under encouragement from the Government. Tires having "limited fabric growth" can be retreaded in the special adjustable molds used by retreading shops.

The extensive retreading of tires by tire manufacturers in molds ordinarily used for making new tires would mean the employment of men and equipment which otherwise would be idle if there were a shortage of rubber. The rubber-tire

⁹There could be made available in 1944 sufficient seedlings to plant 4,500,000 acres. Theoretically, this acreage might yield 150,000 long tons if harvested in 1945; 540,000 long tons if harvested in 1946; or 2,130,000 long tons if harvested in 1948. For comparative purposes, about 9,000,000 acres are planted in cotton in Texas.

industry in 1939 employed 63,000 persons, at least 10 percent of whom were engaged in operating molds and making treads. Even under present conditions, the rubber-tire industry is faced with the necessity of discharging employees because of orders issued by the Office of Production Management to reduce rubber consumption gradually by about 20 percent¹⁰ by the end of 1941, and to reduce the production of automobiles.

If old and worn tires were retreaded extensively during the next few years instead of being discarded, there would of course be a corresponding but temporary reduction in the quantity of scrap rubber which would be available for reclaiming. It would be necessary to adopt a balanced program for retreading tires and reclaiming rubber.

Many retreading shops do excellent work and some guarantee 20,000 miles. There are, however, some shops known in the trade as "gyps" or "dynamiters," which buy tires having damaged carcasses for as low as 10 cents each, retread them, and sell them to unsuspecting motorists. Retreaded tires of good quality are generally sold at prices 33⅓ percent of the prices charged for new tires.

WASHINGTON, D. C., September 1941.

Senator DOWNEY. Mr. Chairman, I hold in my hand a report by the United States Department of Agriculture, Bureau of Plant Industry, by Dr. Polhamus, senior agronomist, dated July 16, 1941, and ask that I may put that in the record.

Senator AUSTIN. Admitted.

(The document referred to is as follows:)

GUAYULE AS AN EMERGENCY SOURCE OF CRUDE RUBBER

By LOREN G. POLHAMUS, Senior Agronomist

Guayule is a rubber-bearing, desert shrub known botanically as *Parthenium argentatum*. This shrub is native to north central Mexico, extending across the Rio Grande somewhat into Texas. Prior to 1900, shipments of the wild shrub were made to Germany for extraction experiments, and at the beginning of the century local industrial utilization of the shrub in Mexico was started, and since then, except for a short period of abnormally low rubber prices (1931-1933), small-scale production has been continuous. In Marathon, Tex., an extraction factory also was operated for a few years, until the supply of the wild shrub became inadequate.

It was recognized that supplies of guayule shrub were not inexhaustible. Estimates made at the beginning of the century indicated that the supply of wild guayule shrubs would not last more than 17 years. During the period of high prices following the first decade of the present century guayule-rubber production was pushed as rapidly as possible. The chief producer, however, soon recognized the necessity of protecting future supplies by harvesting only mature shrubs. In recent years the Mexican Government has controlled the collection of the shrub by requiring permits issued through the Forestry Department and fixing the minimum-size shrub that may be taken.

By conservative exploitation a definite assurance of future supplies is possible, and it now is estimated that a constant production of about 7,000 short tons of guayule rubber is possible annually in Mexico without depleting the natural supplies of shrub.

Along with the realization that guayule rubber production was based on exhaustible supplies of wild shrubs, cultivation experiments were initiated. Large plantings were made by a private concern, the American Producers Division of the Intercontinental Rubber Co., and scientific selection of superior strains was started.

As a result of this work, strains of guayule with a rubber content of more than twice the average of wild plants were developed. Strains also were selected on the basis of size and growth vigor, and a constantly increasing yield of rubber from cultivated selections was obtained. This increase was paralleled by ad-

¹⁰ Based on the average monthly consumption during the period April 1, 1940, to March 31, 1941. As pointed out by the U. S. Bureau of Foreign and Domestic Commerce, this reduction will amount to 46 percent when based on actual consumption in June 1941, the month preceding the effective date of the O. P. M. order.

vances in methods of cultivation; the development of special machinery for handling nurseries; special machinery for planting, cultivating, and harvesting; improved processes for extracting the rubber; and special uses for the rubber in its industrial application.

A great deal of credit must be given to the following outstanding persons connected at one time or another with this development.

F. E. Lloyd, who conducted the most complete study of the plant made to date and initiated cultivation experiments; the late George H. Carnahan, president of the Intercontinental Co., from 1915 to his death in 1941, an engineer with an almost fanatical belief in guayule; W. B. McCallum, botanist, to whom is due the big advance in yields and in agronomic methods; and David Spence, outstanding chemist, a firm believer in guayule, whose researches greatly extended the industrial application of guayule rubber. Many others also cooperated to bring the art of producing guayule rubber to its present stage.

At present the only supply of improved guayule seed is held by the above-named company at Salinas, Calif. The Department understands that this company does not have any seed for sale. The only other supply would be from wild plants in southwestern Texas or Mexico during the fall seeding season.

Rubber is obtained from guayule by a mechanical process. This process consists of cutting the shrub into small pieces and subjecting it to the action of flint pebbles in a pebble mill. The woody portions of the plant are disintegrated by the action of the pebbles while the rubber particles agglomerate to form small masses called "worms." Suitable means are used to water-log the disintegrated woody material so that it will sink in water. The rubber worms are lighter than water and can be separated by flotation. The rubber worms obtained by this process contains 16 to 20 percent resin and, because of this, commonly sells at a discount of about 20 percent in comparison with ribbed smoked sheet. These resins can be removed by a simple treatment with acetone or other resin solvent and the rubber so obtained can be used for most purposes for which Para rubber is used.

In spite of all these improvements rubber cannot be produced from cultivated guayule at a cost competitive with the price for which Para rubber from the tropics can be put on the New York market. Various estimates have been made of the actual costs of cultivating the guayule shrub and preparing the rubber for market. The best estimate which the Department of Agriculture is able to obtain indicates that, if the plants are left in the field for a period of 4 years before harvest, the cost of production would be about 20 cents per pound for commercial quality rubber containing approximately 16 percent resins. Deresination, for the purpose of making the rubber directly comparable with Para rubber, might cost as much as 5 cents per pound additional, though some estimates place the cost of deresination at 3 cents or less per pound. If the plants are left in the field until they reach the period of economic maturity, that is, the greatest return in relation to total costs of production, at least 3 years more would be needed and the most of the rubber would be appreciably less but still substantially higher than comparable costs of Para rubber. Periods of high prices have not resulted in commercial plantings of guayule because of the impossibility of predicting the price of crude rubber over the long period necessary between planting and harvesting of guayule.

Several thousand acres of guayule, however, have been planted experimentally in the Salinas Valley in California, some of it on land owned by the American rubber producers divisions of the Intercontinental Rubber Co., some of it on leased land, and some by contract with individual farmers. When it became apparent that commercial extension of the plantings could not be made on a sound business basis the company used the planted shrub for producing rubber without replanting. At that time farmers having contracts with the company received payments which actually represented an excellent return on their land for the period involved. There is every indication that this profit to the farmers represented a distinct loss to the company.

As developed at Salinas the cultivation of guayule is a "movingbelt," highly developed agricultural process. Presprouted seed are planted thickly on nursery beds and covered with a thin layer of sand. After 8 to 12 months seeds are gathered from the young seedlings by a vacuum device, after which the plants are cut back by a special cutter, and the whole nursery bed uprooted by a tractor-drawn bar which cuts the roots off about 8 inches below the surface.

The plants are then transplanted to the field using a planter which permits planting six rows at a time and spaces the plants accurately to permit cross-cultivation. At harvest the plants are plowed up, windrowed, gathered, and shredded by special equipment in the field.

To date the best location found in the United States for cultivating guayule is in the Salinas Valley of California. In this valley winter rainfall is sufficient for the field plants without irrigation, though the nurseries are equipped with an overhead sprinkling system. The long, dry summers at Salinas are favorable for growth of the plant and essential for formation of rubber.

Many other areas, especially in the Southwest, may be found satisfactory for guayule cultivation but irrigation probably will be necessary in many locations and this will add to the cost of production. In general, it is believed that guayule will not thrive where winter temperatures below 15° F. are common and may be winter-killed by temperatures below 5° F.

Guayule cultivation has been proved possible, and only economic considerations have prevented its development on a commercial scale in the United States. Under normal conditions it is not believed that guayule offers a sufficient return, or even assurance against loss for a sustained commercial production by private interests. During the decade 1930 to 1939 the average price for ribbed smoked sheet on the New York market was 12.4 cents per pound. The most optimistic cost estimate for guayule made so far by any competent individual is 11.4 cents per pound on a 7-year basis (as compared with 20 cents on a 4-year basis) without including any interests on capital investment, profit to the company, or freight or handling charges on the rubber. Adding 5 cents per pound for deresination, the basic cost would be 16.4 cents per pound and the market cost, after profit and handling charges were added, would not be less than 18 cents per pound. If this cost were attainable, the rubber from cultivated guayule might have been sold at a profit in 1937, when the average New York price for ribbed smoked sheet (R. S. S.) was 19.3 cents per pound. In 1936 (R. S. S. price 16.4 cents) and 1939 (R. S. S. price 17.5 cents) there might have been a slight loss and in every other year losses would have been heavy. If a lower cost for deresination were possible the production of guayule might have been profitable in other years but the average price for rubber during this period would have been too low for profit.

Nevertheless, guayule rubber does offer a definite measure of insurance of continued rubber supplies in the United States in the event of any possible emergency or conceivable combination of situations upsetting world trade. From the standpoint of national insurance against industrial or national disaster due to lack of rubber, guayule offers a definite recourse. For long-term supplies, at costs which are competitive with those for rubber produced anywhere in the world, the Department of Agriculture believes that the development of *Hevea* rubber culture in tropical America is the answer.

For a more quickly available supply to meet the present situation guayule is a distinct possibility. While the first harvest at reasonable cost would be at the end of 4 years, guayule shrub could be harvested at the end of a year; but the cost of the rubber would be prohibitive unless rubber could not be obtained elsewhere.

Government agencies now are giving consideration to methods by which guayule might be used as a source of rubber in case of emergency. No plan has been adopted and no Government assistance is being given to individuals desiring to plant guayule.

JULY 16, 1941.

Senator DOWNEY. Mr. Mason, you have handed me another document. Do I understand that this is a copy of an article in the Rubber Age—

Mr. MASON. Yes, sir.

Senator DOWNEY (continuing). Dated August 1941?

Mr. MASON. That is right.

Senator DOWNEY. I would like, now, Mr. Chairman, to place into the record an article by Jackson Barber entitled "Possibilities of Guayule Rubber," taken from Rubber Age, August 1941.

Senator AUSTIN. Admitted.

(The article referred to is as follows:)

POSSIBILITIES OF GUAYULE RUBBER

(By Jackson Barber)

Rubber manufactured from the American-grown guayule shrub to supplant tree rubber from the Orient in the event of Japanese-American hostilities was the object of a 30-minute address by John Z. Anderson in the House of Representatives on April 16, 1941. Described by him were the methods of planting, harvesting, and extraction employed by Intercontinental Rubber Co., at Salinas, Calif., only producers of guayule rubber in America. Overlooked by Congressman Anderson in his address was a tested quick-crop, emergency plan for growing guayule outlined in a national magazine in 1930 by Dr. David Spence, rubber chemist and technologist.

Dr. Spence, who served as chairman of the rubber division of the War Industries National Research Council during the last war, was vice president of the guayule rubber company from 1925 to 1931, splitting with the company over production methods. Although primarily a specialist in synthetic rubbers, Dr. Spence recently discovered a method of vulcanizing rubber by sunlight or its artificial equivalent, while working in the Jacques Loeb laboratory of the Hopkins marine station of Stanford University at Pacific Grove, Calif. Paradoxically, coming in the wake of this invention, Dr. Spence was chosen to deliver the first Charles Goodyear lecture at the meeting of the division of rubber chemistry, September 11-12, 1941, at Atlantic City, N. J. (Editor's Note.—Due to illness Dr. Spence will be unable to appear and the lecture has been postponed.)

Congressman Anderson, learning that this one man had wider knowledge of guayule and its production than any other in the world, wrote to Dr. Spence about the shrub, shaping his letter as a series of questions. These questions, with Dr. Spence's answers, arranged together in the following order, reveal the great opportunity for rubber independence that now lies untouched in the lap of a worried America.

MR. ANDERSON. Do you think it possible to raise guayule on a commercial basis by sowing the seed thick and harvesting in less than a year?

DR. SPENCE. It has been definitely established and reported that guayule plants, grown in California, less than a year old, contain more than 6 percent of pure rubber or on the basis of the number of plants per acre, by count, more than 1,000 pounds of pure rubber per acre. While much may have to be done to translate these findings to agricultural practice, nevertheless, I consider this an all-important approach to the problem of guayule cultivation in this country both for the present emergency and for the future. In the hands of practical farmers, aided by technical assistance and with "treated" seed available, I see no reason to doubt for one moment the successful application in some form of this all-important development as a practical matter.

MR. ANDERSON. Do you think that this manner of growing, harvesting, and milling the rubber would at a greater cost or less than under the method of raising the seedlings in the nursery, transplanting them to the fields, and harvesting at the end of 4 to 7 years?

DR. SPENCE. Any such method of growing and harvesting guayule would greatly reduce the difficulties and costs of cultivation, harvesting, chopping, and treating to extract the rubber as at present carried out on a 4-year cycle, notwithstanding statements to the contrary reported to you in your address to Congress of April 16, 1941.

MR. ANDERSON. Have you any way to estimate the cost per pound of producing the rubber in this manner, that is, the plan of producing it in less than a year, and if so, approximately what do you estimate?

DR. SPENCE. Until large-scale plantings have been made in this way, in the field, actual savings cannot be determined.

MR. ANDERSON. As I understand it, you have always advocated this plan of planting the seed thick and milling the rubber the same year, but wouldn't it be advisable to raise some rubber under the other plan, that is, transplanting the seedlings and allowing the plants to remain in the ground for any number of years until there is an emergency or until the price of rubber is such that it would warrant harvesting a big acreage?

DR. SPENCE. I see no objection to planting sufficient acreage to guayule rubber under present practice if only to serve as a reserve supply of rubber in case of

emergency. In this connection I feel, however, that the space per plant could be advantageously reduced in order to force the development of rubber each year and to increase the yield per acre. It has been definitely established that guayule does not produce maximum rubber except under conditions of drought and enforced curtailment of its physical development.

MR. ANDERSON. What, in your opinion, would be the value of planting guayule rubber as a protection against soil erosion, and do you think it would be possible to plant the shrub on hillsides even though it would be necessary to do so by hand?

DR. SPENCE. The value of guayule as a protection against soil erosion on hillsides will have to be determined.

MR. ANDERSON. What would you say the results were as to additional fertility to the land by growing guayule rubber?

DR. SPENCE. I do not believe that guayule adds anything to the soil on which it is grown. On the other hand it will not produce rubber in maximum quantity on rich soil or under conditions where growth is unrestricted.

MR. ANDERSON. I understand you were with the Diamond Rubber Co., where they deresinated some 30,000 pounds of guayule rubber per day. Can you give me any figures as to the approximate cost per pound for deresinating and purifying the rubber? Have you any estimates as to what you think improved, modern machinery might cut down this cost?

DR. SPENCE. By comparison with the means in use in 1908 for solvent extraction and purification of guayule rubber I would say that the costs involved by modern methods for the purification of the rubber and recovery of the solvents employed should not exceed one quarter of 1 cent per pound of rubber extracted. The value of the resins recovered will largely offset the cost of extraction. On the other hand, you should not overlook the fact that rubber of improved quality such as was used in tires and tubes made entirely from California-grown guayule was produced by a process of "retting" of the shrub without solvent extraction; also it has been shown that the rubber in the guayule shrub can be recovered as a latex, similar in properties to the latex extracted from Hevea in the Far East. By this means the acetone extract, also the bagasse and insoluble impurities present in guayule as currently produced, are reduced to meet the requirements of the rubber-manufacturing industry in a much larger way than is now possible. I merely mention these matters to indicate some of the latent possibilities in connection with the development and betterment of guayule rubber looking to the future. One thing is certain: If guayule is ever to attain wide application and extensive use by the rubber-manufacturing industry, it will have to be a product refined and improved over anything currently available.

MR. ANDERSON. I notice your very complimentary remarks in regard to Dr. McCallum's work in developing new varieties of the guayule shrub, but as I understand it since those remarks were made Dr. McCallum has almost doubled the percentage of rubber in the plant. Therefore, what in your opinion would be the minimum price for which rubber could be produced per pound in large quantities after thorough experimentations had been carried out?

DR. SPENCE. I believe that rubber can now be produced from guayule in this country at 10 cents a pound and for less when its potential possibilities have been fully developed to practical account.

MR. ANDERSON. Is it your opinion that guayule rubber, properly handled, could compete successfully at any time with Hevea rubber from the Near East?

DR. SPENCE. It is my opinion that guayule, properly handled and developed, can compete successfully with Hevea from the Far East. I doubt very much if any plant erected in this country to produce synthetic rubber can hope to compete with guayule in the matter of cost.

MR. ANDERSON. Is there any fundamental difference between Hevea rubber and guayule rubber after being refined?

DR. SPENCE. The physical properties of "refined" guayule are very much in its favor today when time of mixing has called for the development of more plastic rubbers.

MR. ANDERSON. There have been a number of suggestions, such as a guaranteed price to the producer; furnishing seed by the Government to growers; a provision in the Army supply bill that Government purchases of rubber must be from products grown in this country; an appropriation of money sufficient to make a thorough investigation and complete experiments by the Government with the belief that this knowledge will make it so attractive that pri-

vate capital will immediately encourage the growing of guayule rubber. Have you any suggestions along this line?

Dr. SPENCE. In answer to this question, it seems to me that the possibilities of guayule such as I have pointed out should at once be thoroughly investigated by competent authorities and tests undertaken to determine its value in the best practical way, both to the farmer and to the rubber-manufacturing industry alike. Until this has been done and until the results have been made known, it is both foolish to speculate on the ultimate future and final value of guayule or, on the other hand, to dismiss it as of no account.

Senator DOWNEY. Now, Mr. Mason, if it were desired to foster and encourage the development of this guayule rubber supply, have you any suggestions to the committee as to what procedure would be most feasible in order to do that?

Mr. MASON. No, sir; Mr. O'Neill, who has been interested in the matter, had a plan last week, which we were going to suggest, but in the meantime the war has come on and it is hardly feasible, because our original plan called for training of men in the growth of the plants, or shrubs, and the erection of machinery, without going into any great planting, but in view of the fact that we are going to have a shortage, and probably have it very soon, the main problem is to develop this and get it in production as soon as possible, and the experts will know the best way to go about that and procure rubber from the plants, and while this will cost four to five times as much, it seems that in an emergency affecting the available rubber supply, this is the only way we can get immediate action, and we have a certain amount of acreage which is doing no good unless it is planted.

Senator DOWNEY. Mr. Mason, please advise us somewhat more than that—what, normally, under ordinary conditions, does the rubber that we get from Asia cost us?

Mr. MASON. Six cents a pound.

Senator DOWNEY. What is it now costing?

Mr. MASON. It is around 22½ cents a pound. Normally, I say it costs 6 cents, it can be produced for that, and it varies, and that is the reason guayule has not been grown on a larger scale heretofore, because it cannot compete with 6-cent rubber, and no one says that it can be made for less than 10 cents, and there is a question whether it can be produced for that figure, but we do know that it can be produced for around 15 to 19 cents.

As to the growing, all the farmers in California and the other States would need would be an assurance from the Government that they would get, for their guayule, from the Government, the difference between the market price and the cost of growing, based on the present cost of growing, which, as I say, is 15 to 19 cents.

Senator DOWNEY. Let me interrupt a second.

(At this point Senator Reynolds (chairman) entered the committee room and assumed the chair.)

Senator DOWNEY. Mr. Chairman, Mr. Mason here is testifying on behalf of the General Tire & Rubber Co. in the matter of guayule rubber production.

The CHAIRMAN. We are glad to have Mr. Mason with us.

Senator DOWNEY. He has just reached the cost of production on guayule rubber.

Mr. MASON. Under present conditions that means that the farmer, at the end of the year, has harvested a crop, and the Government would

not need to do anything about it other than finance the construction of the necessary plants in the areas where you are going to plant the guayule.

Senator DOWNEY. Will you give us, roughly, an approximation as to the number of plants that might be required if the Government did want to engage in the undertaking on a large scale?

Mr. MASON. Based entirely on what we know of the operations of the Salinas plant, which is the only one running, or has been running, I would say that 10 or 12 plants, placed at strategic points, would mean the expenditure of no more than two or two and one-half million dollars, if you are going to construct mills with the same capacity as they have now. They turn out a lot of rubber in a very short time, and it is a simple process and merely means taking the rubber out of the plants and drying it and deresinating it.

Senator DOWNEY. Now, that might be a total cost of two or three million dollars?

Mr. MASON. Yes, sir; to be put out for construction of the plants, plus the difference to be paid to the farmer. Just as an example, taking the worst possible conditions, say that you could get, all of a sudden, tree rubber for 6 cents a pound, and the cost to the farmer of guayule rubber is 20 cents, to grow it, then, that would mean that there would be a difference there of 14 cents a pound for the 500,000 pounds, which would probably be the extent to which you would want to plant, and that is not a very great amount of money to insure your having a rubber supply.

Senator DOWNEY. You say 500,000—

Mr. MASON. Tons.

Senator DOWNEY. Yes. Well, Representative Anderson, of California, whose district includes this Salinas enterprise, I understand, introduced a House resolution calling for an appropriation of \$25,000,000.

Mr. MASON. That is right.

Senator DOWNEY. And I suppose that the additional money was meant to cover what the manufacturer receives from the Government, as well as the farmer.

Mr. MASON. The farmer and the plant should be covered, entirely, in that sum.

Senator DOWNEY. Mr. Chairman, I think that is all I desire.

The CHAIRMAN. Are there any members of the committee who desire to direct any questions to Mr. Mason?

Senator LODGE. I would like to ask a question or two.

The CHAIRMAN. Very well; proceed, Senator Lodge.

Senator LODGE. This may have been covered before I came in, but we consume how many tons, in the course of a year?

Mr. MASON. Normally, probably 600,000 tons.

Senator LODGE. And we now produce how many tons of rubber from this source?

Mr. MASON. There is no appreciable amount produced at the present time, at all; about 100 tons or so is imported from Mexico and sold to the Goodrich Co., but in the Salinas plant, that began—they began growing the shrubs there when rubber went to \$1.30 a pound, and they planted a good deal of it, and then the market fell and rubber went down to 3 cents a pound and those farmers could not grow that shrub for 3 cents a pound, so, since that time, only the Interconti-

mental Rubber Co. there has kept up their Salinas project in order to experiment, more than anything else, because they still operate in Mexico and import the Mexican shrub which, as I said, grows wild and is gathered, and they pay the natives some amount for their labor—I do not know the exact amount, but the cost today is around 20 cents a pound, and that is what has kept it from competition with the Hevea rubber so far.

Senator LODGE. You gave a figure as to the weight of rubber, per acre, when you began, that you got from this guayule; what was that figure?

Mr. MASON. That is figured on the basis of letting the shrub grow for 4 years, which is the ideal way, probably, and they can get from 2,000 to 2,500 pounds per acre, and when it is harvested at the end of 1 year, as Dr. Spence, of Stamford, asserts is the most economical way, you can get 1,000 pounds of rubber per acre at the end of 1 year, by broadcast seeding.

Senator LODGE. Is there enough acreage in this country to grow the whole rubber supply?

Mr. MASON. I think so, because it will grow on a lot of land where other things cannot be produced. It will take irrigation or water, during its first year, and then it must be kept dry, because it is during that dry spell that the rubber content develops in the plant.

Senator LODGE. That is all; thank you.

Senator GURNEY. May I ask a question, Mr. Chairman?

The CHAIRMAN. Certainly, Senator Gurney.

Senator GURNEY. Do you know if there is any possibility of increasing the importation from Mexico of this wild rubber to take care of the emergency?

Mr. MASON. I am not prepared to say definitely, but we believe there is. Mr. O'Neill is trying to find out, now, whether we could not enter into some agreement with a Mexican company to get the guayule necessary; it is just a question of gathering it, although they have dissipated a lot of their supply over the dry spell and they do not seed them, but still, for the period of this emergency, we could probably get more than we are now getting from Mexico, because the only company buying so far has simply been buying enough for their own mill.

The CHAIRMAN. Are there any other questions?

Senator AUSTIN. No.

Senator DOWNEY. Mr. Secretary, do you care to ask any questions?

Secretary JESSE H. JONES (Department of Commerce). I was a little surprised that you think you can grow rubber at 6 cents.

Mr. MASON. We do not think we can, here.

Secretary JONES. You mean, abroad, anywhere?

Mr. MASON. That is the cost of producing it, or growing it, but we have not been getting it for that figure for some few years, but the cost of production, I think you will agree, of rubber, has been 6 cents in the Far East, but there is another factor which has to be considered, and that is, freight enters into it and for years the rubber market in New York was as low as 6 cents, but not recently.

Secretary JONES. As low as 6 cents?

Mr. MASON. Not for many years.

Secretary JONES. And you think you can grow it at that figure?

Mr. MASON. It can be grown now for from 15 to 19 cents a pound, varying, because of the cost of land and other things out there, but

men who are growing it tell us that is what they are growing it for, and say that they might grow it cheaper, but I do not know, because when they get into quantity production, the figures might change.

Secretary JONES. Yes.

Senator DOWNEY. I was somewhat astonished, Mr. Secretary, at first, by his statement, because rubber has not been sold, for many years, for any 10 or 12 cents.

Mr. MASON. Not for many years, that is true, but it is still sold far above the cost of raising guayule.

Secretary JONES. Is it your information that there is land available, suitable for this purpose, enough to grow anything like our requirements?

Mr. MASON. Yes, sir; that is my information, from people in Texas, Arizona—much of the land that is not being used for anything now, can be utilized for guayule, much of the land in California—they have found that it does much better on good soil, but that it will grow on poor soil, where you cannot grow much else.

Secretary JONES. Does it require irrigation?

Mr. MASON. Irrigation at the start, or winter rains, to start with, and then it requires a dry spell, and Salinas has these irrigation supplies, and in the case of this plant, that is by an overhead system in their nursery there.

Secretary JONES. I wonder why Firestone and Ford would be going to foreign countries to try to develop raw rubber—why they did not try that.

Mr. MASON. Cost.

Secretary JONES. Cost?

Mr. MASON. Yes. They went to Liberia, in the case of Firestone, figuring on getting much the same sort of labor cost that they had in the Far East where they eat rice and live on practically nothing and work for 20 cents a day, but when they got into Liberia those things did not work out just the way they had planned, and one thing that happened was that when they sent ships in to get the product out the ships carried in meat, and that was sold there and raised the cost of living.

Secretary JONES. It did not work that way in Brazil.

Mr. MASON. No; I think that is one reason that the cost of rubber was plugged at 16 cents a pound by the British Government, as it was some years ago.

Secretary JONES. Nothing else occurs to me at this time.

The CHAIRMAN. We are very much obliged to you, Mr. Mason.

Who is the next witness, Senator Downey?

Senator DOWNEY. I would first like to introduce in evidence the Rubber Age of November 1941, containing an article by some of our officials in the Navy on rubber, and I particularly call the attention of the committee to the statement on page 106, which is in very technical terms, and I won't read it, but I believe, from reading the whole article, it indicates that in many ways this rubber shrub, or product, would be superior to any other rubber product.

The CHAIRMAN. If there is no objection the official reporter will embody that into the record.

(The article referred to is as follows:)

[From the Rubber Age, November 1941, p. 106]

[EXCERPT FROM AN ARTICLE ENTITLED "LIGHT AND ACCELERATED LIGHT AGING OF RUBBER, SYNTHETIC RUBBER, AND RUBBER SUBSTITUTES," BY T. A. WEIKENTHIN AND D. RICHARDSON, R. F. THORNEY, AND R. E. MORRIS]

Additional tests were made on substitute G with various types of primary and secondary accelerators in which the light aging resistance was measured. These tests indicate that with special compounding and capable selection of accelerators and antioxidants light aging properties may be improved to a much greater extent with substitute G than has been found possible with natural rubber. Thus, under the same conditions of exposure—that is, 56 hours at 20 percent—elongation to the unfiltered radiation from "sunshine" carbons, the change in tensile strength for smoked sheet was 62 percent, whereas the change for similar compounds made with substitute G-1 was only 21, 27, and 30 percent, respectively.

KEY TO THE IDENTIFICATION OF SUBSTITUTE RUBBERS

Substitute G, guayule; substitute G-1, domestic deresined; substitute G-2, domestic resinous; substitute G-3, Mexican resinous.

Senator GURNEY. Mr. Chairman, may I interrupt?

The CHAIRMAN. Certainly Senator.

Senator GURNEY. Is it a fair conclusion from what the previous witness said, that he had enough seed for 110,000 acres?

Senator DOWNEY. Yes; that is correct.

Senator GURNEY. If we use that seed now, this year, that would be enough for 110,000 acres. Is that right?

Senator DOWNEY. The witness said it would be practically up in those figures.

Senator GURNEY. I mean, we have enough seed now for 110,000 acres?

Senator DOWNEY. Yes.

Senator GURNEY. That would probably produce 55,000 tons, my arithmetic tells me.

Senator DOWNEY. Yes.

Senator GURNEY. Now, if it produced 110,000,000 pounds, and we will say it is worth 20 cents a pound, after it is produced, we have a crop worth \$22,000,000, and the gross cost of plant building or manufacturing capacity, according to Mr. Mason's testimony, will be two or three million dollars; is that right?

Mr. MASON. That is the information I get from Intereontinental, sir.

Senator AUSTIN. But your whole agricultural plant would be going, would it not?

Mr. MASON. Yes, sir.

Senator DOWNEY. But not the seeds, of course, Senator.

The committee may not understand that there is a difference of opinion on this. I first want to say that the article that I introduced into the record from the Rubber Age quotes, I believe, Dr. Spence, of Stanford, who is assumed to be an expert on this—at least, I believe he is—as saying it is entirely feasible to utilize the plants at the end of 1 year.

Now, you understand that some of the gentlemen here in Washington, who are also experts on this, are not so sure of that, and perhaps are dubious of that, and we have a gentleman here who is an

expert on this very subject, Dr. Brandes, of the Department of Agriculture, and suppose you just listen to his comments along that line.

Senator KILGORE. May I ask a question?

The CHAIRMAN. Certainly, Senator Kilgore.

Senator KILGORE. When you say that you plant this seed and that it is possible to harvest it in 1 year, do you mean 1 year from seed to first crop, or do you have to plant the seed and get a seedling and transplant the seedling and let it grow for 1 year?

Senator DOWNEY. Will you answer that, Mr. Mason?

Mr. MASON. The answer is, if he plants the seed and harvests it in 1 year, that is just broadcast, and at the end of the year the crop is harvested, and in that way he will have 6-percent rubber.

Senator DOWNEY. You mean you will plant it, say, in January?

Mr. MASON. Yes; plant it in January and harvest it in the fall.

Senator KILGORE. That is what I wanted to know.

The CHAIRMAN. How old is that tree on exhibit here?

Mr. MASON. That is 4 years old.

The CHAIRMAN. What is the size of the 1-year growth?

Mr. MASON. This [indicating specimen] is 8 months, or you might say ready for the first harvest.

The CHAIRMAN. Now, how is that harvested—is it torn up?

Mr. MASON. It is torn up by the roots and all is used except the foliage. They have a machine which loosens the dirt and pulls up the plant, and they make use of the entire plant.

The CHAIRMAN. They take the whole thing out?

Mr. MASON. Yes, sir.

The CHAIRMAN. They can make utilization of this in producing rubber in this emergency, and if necessary they can get rubber the very first year simply by making the destruction of that crop?

Mr. MASON. Yes; after you have taken the seed.

The CHAIRMAN. After that, the next season they would plant more, where that was being produced, and would you have to follow the same practice each year?

Mr. MASON. Yes, sir.

The CHAIRMAN. When would this plant be expected to reach the maximum production if it had been left in the ground?

Mr. MASON. At the end of 4 years.

The CHAIRMAN. Leave it there for a period of 4 years?

Mr. MASON. Yes, sir; I believe the increase is estimated at 320 pounds per year, per acre.

The CHAIRMAN. For 4 years?

Mr. MASON. No, sir; after the first year, it increases by about that rate until at the end of 6 or 7 years, it reaches a maximum of around 2,500 pounds per acre.

The CHAIRMAN. If it is planted in January, then it can be harvested in October and, as you said, you have to destroy the whole plant?

Mr. MASON. Yes, sir.

The CHAIRMAN. And the next year, you do the same thing?

Mr. MASON. Yes, sir.

The CHAIRMAN. Then, in order to get the maximum results it would be necessary to permit the plant to obtain its maximum growth, and how many years does it take to obtain that maximum growth?

Mr. MASON. Seven years is the accepted figure, although you may leave it in as long as 10 years, but after 7 years, the rubber content does not get any higher, and stays about the same, from 7 to 10 years.

The CHAIRMAN. And after 10 years, would it increase any further?

Mr. MASON. They do not harvest it after that period, that I know of; the experiments have been conducted over a period from 4 to 7 years, in growing it commercially.

The CHAIRMAN. Then, after 7 years of growth, it is, comparatively speaking, the size of that plant, and then they uproot the whole thing?

Mr. MASON. Yes, sir.

The CHAIRMAN. Then this process starts over again?

Mr. MASON. Yes, sir.

The CHAIRMAN. And the increase in production is obtainable as a result of the planting—this size is the first year, and the second year is three times that size?

Mr. MASON. Yes, sir.

The CHAIRMAN. And the third year would be about 8 times that size?

Mr. MASON. Yes, sir; and the fourth year, would be like the shrub we have there.

The CHAIRMAN. Thank you.

Senator GURNEY. Could I ask just one more question:

At the end of the first planting season, or growing season, could you harvest the seed from this plant that has grown for 8 or 10 months?

Mr. MASON. Yes, sir.

Senator GURNEY. And it does produce enough seeds to make it worth while?

Mr. MASON. Dr. McCallum estimates that it will produce about 10 to 1, at the end of the first year.

Senator GURNEY. At the end of the first year?

Mr. MASON. Yes, sir.

Senator KILGORE. I want to ask one other question, I think maybe I have misunderstood.

Under your theory, what would be the pounds crop per acre, if you harvest it at the end of the first year?

Mr. MASON. We are not in position to say, we do not know; but Dr. Spence, who has worked with this plant for some years, says that you can harvest 1,000 pounds per acre.

Senator KILGORE. And only 300 pounds per acre through this other system?

Mr. MASON. That is because they are all thinned out, because if they are too thick, they will not grow properly. If you are going to harvest the first year, then you sow your seed broadcast, but if you are going to plant for the 4- or 5-year cycle, then you thin them out and transplant them into the squares. There are about 8,000 plants per acre, started in the plant nursery.

Senator DOWNEY. Mr. Chairman, if I might interject with this comment:

The statement of Dr. Spence, here, indicates his opinion, and that is, while, of course, the rubber content in the plant is much greater at the end of the third, fourth, and fifth years than it is at the end of the first year, from a commercial viewpoint it is much more profit-

able to harvest the plant at the end of the first year because your investment is that much shorter in time, and you realize on that, that much quicker, whereas, while your rubber content is much greater at the end of 4 or 5 years, still, figured on the basis of 6 percent, it would seem, according to Dr. Spence's figures, to be more advantageous in the 1-year system.

The CHAIRMAN. And do you think that Dr. Spence, at Stanford, took into consideration the figures that you mentioned, the fact that this plant at 1 year is the size of this [indicating], and at the expiration of 2 years, will be this other size [indicating], and at the end of 4 years, would be the size of that shrub [indicating]?

Senator DOWNEY. I assume that he has taken all those factors into consideration, as he is considered one of the leading experts on rubber in the United States, according to my understanding.

Senator GURNEY. This plant, at the end of 1 year, appears to be a plant possibly 6 or 8 inches high, and with tap roots 6 or 8 inches long.

The CHAIRMAN. That is correct, and if they want to continue with that plant, they replant it in the field, I imagine.

The question is connection with that, Senator Downey, is that you have a plant here which is 6 inches long, or close to that, at the expiration of the first year, and then you transplant this for its second year of growth.

Mr. MASON. Well, as it matures in 4 to 5 years, this plant would increase in size and weight probably four times by the end of the second year.

The CHAIRMAN. By the end of the second year?

Mr. MASON. Yes, sir.

The CHAIRMAN. So that the second year's increase, in proportion to the shrub, is more than its first year's growth?

Mr. MASON. That is correct.

The CHAIRMAN. In other words, the smallest year, is the first year, that is, in its growth?

Mr. MASON. Yes, sir.

Senator KILGORE. May I ask a question, Mr. Chairman?

The CHAIRMAN. Certainly, Senator Kilgore.

Senator KILGORE. The pounds per acre cannot be figured in that way, because if you are harvesting at the end of the first year, you are planting or sowing your seed broadcast, and your plants would be much more close together than if you go into your second year, when your seedlings would be transplanted?

Mr. MASON. That is right.

Senator KILGORE. So, you have more plants per acre, approximately, I would guess, four or five times?

Mr. MASON. I imagine, four or five times, sir, at least.

And the available seeds could not cover the same acreage as if you were planning to grow the plants for 4 years.

Senator KILGORE. For rush production, you would really get more rubber, per acre, on an annual harvest basis, if you had the seed?

Mr. ANDERSON. On an annual harvest, but at a higher cost.

Senator KILGORE. If you had the seed.

Mr. ANDERSON. Yes.

The CHAIRMAN. The only maximum figure I have heard referred to, from the standpoint of acreage, is 7,000; is that 7,000 a year?

Mr. ANDERSON. No, sir; that is at the end of 4 years.

The CHAIRMAN. And at the end, if you leave it in 7 years, you have to replant it over again?

Mr. ANDERSON. You might leave it there for 10 years, if you cared to, but the production of rubber at 10 years would be no higher, by any appreciable amount, than at 7 years.

The CHAIRMAN. Thank you.

Senator DOWNEY. All right, Dr. Brandes, will you please come forward? If you will state your conclusions and opinion about that now, they will be appreciated.

STATEMENT OF DR. ELMER W. BRANDES

Dr. BRANDES. Elmer W. Brandes, in charge of the special rubber project, Bureau of Plant Industry, Department of Agriculture.

The CHAIRMAN. Thank you.

Dr. BRANDES. Mr. Chairman and Senators, if I understood the instructions of Senator Downey, they were to give a running comment on the cultivation of guayule and the production of rubber therefrom.

Senator DOWNEY. Is there any objection to following that procedure, Mr. Chairman?

The CHAIRMAN. There is no objection that I know of.

Dr. BRANDES. If I may follow the trend of questions that have been asked so far, I will try to guide myself accordingly.

I believe that we can agree with the last witness that the production of guayule rubber, of a quality suitable for manufacture of rubber goods, including tires, is entirely feasible, from the standpoint of the agronomic questions involved, and the reason that such production has not increased in continental United States is purely a question of economics.

We have, in the Department of Agriculture, in past years, made test plantings of guayule in various parts of the Southwest and have observed very carefully the type and scale of plantings made by Intercontinental Rubber Co., and have reason to confirm their figures on costs, by observing the various field practices, one by one, and with a general knowledge of the equivalent cost of these operations applied to other crops, and we believe them to be essentially correct, and that in this area, in Salinas Valley—in other words, in the area where the Intercontinental Rubber Co. is now operating on that 4- or 5-year cycle—rubber can be produced at a cost of around 20 cents a pound.

However, that is the cost of production, and in order to make guayule rubber usable on a large scale, it would be necessary to remove some of the impurities in the guayule rubber, principally, certain resins, which would add to the cost, perhaps, another $2\frac{1}{2}$ or 3 cents a pound. There again, the Department of Agriculture has not actually carried on any deresinating experiments, but we have to take the figures of the Intercontinental Rubber Co., which carried on deresinating, on a small scale, and I should say that with the amount of rubber now produced from guayule, it is not necessary to deresinate it because these impurities are, in the scale that it is now used in the mix for manufacturing rubber goods, desirable rather than undesirable, and so it is not necessary to go to the trouble and expense of removing the resins.

However, with a large increase in the amount of guayule rubber used, it would be necessary to deresinate it.

Now, I mentioned that these figures are based on the actual enterprise in the Salinas Valley. I understand that the Intercontinental Rubber Co. has explored the possibilities in many parts of the Southwest, they had done that before they settled on this rather limited area as the one that is most suitable, and therefore, we make the assumption that it is the best for the purpose that they succeeded in finding in these long years of trials and experiments.

Whether we can assume that similar conditions of land and rainfall exist in the large quantities that would be necessary for large-scale production of guayule rubber, is a question that will have to be further studied.

My own opinion is that they have the best area in the Salinas Valley, and whether other areas may be found that approach that in quality for this purpose is the question. We probably will not find any better land, and that means, of course, that these figures on production are probably minimum figures, and when the industry is expanded, if it is expanded, there is just as much room for believing that it may be somewhat higher in cost, as that it may be somewhat lower in cost.

Senator AUSTIN. Why?

Dr. BRANDES. Because of this long experience of the Intercontinental Rubber Co. in attempting to find the best conditions for their enterprise. They tried to grow guayule in other parts of California, in parts of Arizona, Texas, and, I believe, in New Mexico—does that answer your question?

Senator AUSTIN. I am not quite clear in my mind about it.

As I understood you, you said that you might just as well expect a higher cost of production from the expansion of the industry, an increased cost, as to expect a reduction?

Dr. BRANDES. Because this valley is peculiarly situated, a very peculiarly situated area for the production of guayule shrubs, under cultivation.

Senator AUSTIN. Recognizing the possibility that it will cost more in other places than it does cost in that valley, then what?

Dr. BRANDES. The question is, for example, it might require irrigation in other areas, as compared with this part of the valley, near Salinas.

Senator DOWNEY. Mr. Chairman, may I interrupt the doctor there with a question:

Doctor, there is a very large unused acreage right in the Salinas Valley that is adaptable for this, is there not?

Dr. BRANDES. Yes; I think so.

Senator DOWNEY. Several hundred thousand acres?

Dr. BRANDES. I made some surveys there, myself, this summer, and it would appear that that land perhaps runs up to fifteen or twenty thousand acres, or more, and it might be available in Salinas Valley, that would be suitable for the growing of guayule, and when I was there, in September, I think it could be obtained for from \$8 to \$15 per acre per year rental.

On the subject of different cycles in producing guayule rubber, it is the opinion of Dr. McCallum, whose work for the Intercontinental Rubber Co.—he has worked for them for something like 30 years and is probably the best informed man on the field practices in connection with growing guayule—in his opinion the 1-year cycle is not feasible.

There is very little rubber in the plant at the end of the first year and there is very little weight to the crop, and while I do not know the ways in which Dr. Spence made his calculations, I know that that is not in agreement with Dr. McCallum.

Mr. MASON. Dr. McCallum told me, 2 weeks ago—he agreed that you could do it, but that it was not practical, that it would cost too much.

Dr. BRANDES. I think this picture will show that on the 1-year cycle, which is growing guayule in the nursery [exhibiting picture], under our overhead irrigation, it becomes practically a horticultural crop rather than a field crop.

That is a picture showing the young seedlings in the nursery which are grown by irrigation for the first 9 to 10 to 11 months, approximately.

The CHAIRMAN. Is that the first year's crop, pictured there, or is that a bed of seedlings?

Dr. BRANDES. That is the first year, in the nursery.

The CHAIRMAN. That is not for cutting, or marketing, is it?

Dr. BRANDES. No, sir; merely to produce young plants to set out in the field, by specially devised machinery, and that is distinguished from the plants growing in the field. The field plants, of course, require much larger acreage and are placed wider apart.

The CHAIRMAN. The field plants are not as productive as the ones in the nursery, are they?

Dr. BRANDES. Here is a series of pictures that give close-ups of the plants in the nursery [indicating]; here they are after being set out in the field [indicating] at the age of 2 years; and here they are in the field at the end of 4 years, which would make approximately 5 years from the seed; that is, approximately 1 year in the nursery and 4 years in the field would be a 5-year cycle.

Senator DOWNEY. If I may intervene, Mr. Chairman, with a question:

Doctor, will you clarify my mind on this: If there was a crop planted from seeds this January, when would you get the seeds from that planting?

Dr. BRANDES. You could get some seeds the first year, say in September or October.

The CHAIRMAN. Then, when would you harvest the plant itself, for the purpose of securing rubber?

Dr. BRANDES. These plants would not be harvested, on the 5-year cycle, until 4 years from the time they are set out.

The CHAIRMAN. I understood they could be planted in January and harvested in October.

Dr. BRANDES. Well, the last witness was quoting from Dr. Spence, and he said that it was feasible; but I said that there was some question that it is a practicable procedure.

Senator DOWNEY. Mr. Chairman, in order that the committee may clearly understand the issue on this particular point, which, of course, is of great interest, I would like to read to the committee the statement of Dr. Spence on this particular issue, as quoted in this article in Rubber Age. Representative Anderson, who is with us today, is asking a question, and I am quoting from this article, and the first question asked by Representative Anderson:

Mr. ANDERSON. Do you think it is possible to raise guayule rubber on a commercial basis by sowing the seed thick and harvesting in less than a year?

Now, from Dr. Spence, the answer was—

It has been definitely established and reported that guayule plants, grown in California, less than a year old, contain more than 6 percent of pure rubber, or on the basis of the number of plants per acre (by count) more than 1,000 pounds of pure rubber per acre. While much have to be done to translate these findings to agricultural practice, nevertheless, I consider this an all-important approach to the problem of guayule cultivation in this country both for the present emergency and for the future. In the hands of practical farmers, aided by technical assistance and with "treated" seed available, I see no reason to doubt for one moment the successful application in some form of this all-important development as a practical matter.

And that is the end of Dr. Spence's statement.

The CHAIRMAN. Have you completed your statement; do you wish to say anything else?

Dr. BRANDES. I merely call to mind that Dr. McCallum is of a contrary opinion, and we concur in it.

Mr. MASON. Did he not run that plant for 4 or 5 years?

Dr. BRANDES. He may have run the fabrication plant; he is a rubber chemist; he is not a field crop expert.

Senator DOWNEY. Well, Doctor, there is certainly one way to find out about that, and that is to try it out.

Dr. BRANDES. It happens that there is very little need for any actual repetition of experimental work on guayule. That has already been undertaken by the Government and they have studied it and investigated it, experimentally, and any further experiments are really not needed, because they have been carried on for the last 20 years, and we would rely on those experiments that have been carried on.

There is a crop right now, today, of almost 1-year-old shrubs in the nursery, similar to that in the photograph that I just passed around, and similar to this in the bottle [indicating], that could be harvested. The cost of producing that is on the books, the amount of rubber extracted from it could be easily determined, and the set-up is already there in the field.

I do not know whether Dr. Spence's figures are based on theoretical considerations or on actual experiments; I have not heard of any actual experiments, and I asked Dr. McCallum and he said he had not.

Mr. MASON. Dr. Spence said he had done it himself, that he actually had.

Dr. BRANDES. But it would be easily verified by the company, or perhaps by the Government, by arrangement with the company.

Senator DOWNEY. Dr. Brandes, may I ask you this:

If the crop were harvested at the end of 2 years, rather than 1, would you be in better position than to get more rubber?

Dr. BRANDES. Yes, sir.

Senator DOWNEY. And the third year, more than the second?

Dr. BRANDES. The increase is quite considerable after the end of the first year, in the field, and up to the fourth or fifth year it is a rather rapid rate of growth, but beyond the fifth year it is questionable whether the increment of rubber would justify the annual rental of the land.

Senator AUSTIN. You are assuming, are you not, the transplantation of the plants?

Dr. BRANDES. Yes, sir; that calls for the transplanting of the little seedlings from the overhead-irrigated nursery to the field at the end

of from 9 to 12 months, and then permitting them to grow for from 2 to 3 or 4 years in the field without irrigation.

The costs after they are set out in the field are very small compared to the costs in the nursery.

The CHAIRMAN. Do you have to cultivate them after they are in the field?

Dr. BRANDES. They need some cultivation, a few times, during the first year or so.

The CHAIRMAN. They do not have to be irrigated after that first year?

Dr. BRANDES. No, sir; they are not irrigated, except when they are in the nursery.

Senator WALLGREN. Does not the Intercontinental Rubber Co. have any trouble in producing that rubber?

Dr. BRANDES. I understand they apparently have had some in getting the processing machinery at Salinas.

Senator WALLGREN. Any difficulty along there they will overcome?

Dr. BRANDES. I really could not answer that.

Senator AUSTIN. That is in the national defense, and I do not imagine they will have any trouble with that.

Senator DOWNEY. Mr. Chairman, I am sure they will not.

Senator AUSTIN. The law will take care of that.

Senator WALLGREN. How much is needed? Has anyone discussed that matter at all?

Senator DOWNEY. No; we have not discussed that.

Senator WALLGREN. Is there anyone here who could tell us whether secondary rubber is of any use at all?

Senator DOWNEY. The testimony shows that it would be 90 percent as valuable as the rubber they are getting from trees, 90 percent as valuable as the rubber they are getting from Asia, and they are better able to insure a supply through this method because we are faced—and we might as well look the situation in the face—with a desperate situation, because we must all look at the situation with the possible assumption that the Japs may grab control of the Pacific.

Senator WALLGREN. How much of a supply is on hand; do you have any testimony as to that?

Mr. MASON. Roughly, on hand—

Senator DOWNEY (interposing). Wait a minute.

Mr. Secretary, will you answer that if you care to?

Secretary JONES. 500,000 tons in the country, which is about 1 year's supply.

Senator WALLGREN. Is it possible to get use out of rubber—that is, secondary rubber?

Secretary JONES. Yes; we reuse the rubber, and I expect we could get along pretty well for 2 to 2½ years without importing much more rubber. We have 125,000 tons on the water now.

Senator WALLGREN. I suppose the supply is not shut off yet?

Secretary JONES. No; we will probably lose some of that 125,000 tons afloat, but we hope not a great deal of it.

Senator WALLGREN. There is no reason why we could not buy a great deal of it, immediately, is there?

Secretary JONES. We have been buying all the rubber available for about 18 months. We have accumulated a stock pile of rubber, start-

ing July 1940, and that is the reason we have got this large supply now.

Senator WALLGREN. Assuming that the source of supply is absolutely shut off, immediately—how soon would we be in need of additional, or new sources of supply?

Secretary JONES. I think we would need to replenish rather rapidly, and if we do not receive supplies right along, we certainly would have to do some heavy rationing of rubber, and I think that can be done.

We could recover from the used rubber more probably than we have done in the past, but I have not felt too uncomfortable about rubber. Of course I would feel a lot more comfortable if the Pacific were still open.

The question of this guayule rubber was brought to our attention some months ago, and—shall I go on, or just answer your question?

Senator DOWNEY. Go right ahead, sir.

The CHAIRMAN. Proceed, Mr. Jones.

Secretary JONES. I was going beyond the question.

It was brought to our attention, and we investigated the feasibility and the practicability of getting rubber by this method, and we reached the conclusion that it was not quite as favorable as the Doctor has indicated here, as to price.

He has, I think, probably about given our views as to the quantities available and the practicability of it, and I should like to pursue any course that will insure us rubber, and for that reason we are now building some four synthetic plants at a cost, to the R. F. C. and industry combined, of \$35,000,000 or \$36,000,000. Those plants will produce about 40,000 tons a year, and I think private industry, on its own, including some they have under construction, will probably produce another 35,000 or 40,000 tons per year, so we would have, from synthetic, I should say, a year from now, 80,000 tons annual capacity.

I am expecting that rubber to cost more than 20 cents, in fact I should be surprised if it does not cost 30 cents, possibly more.

When we started buying rubber, we agreed, with the International Rubber Regulations Committee, to be a ready buyer at a price ranging between 18 and 20 cents, delivered New York. We, since conditions got bad and rates got higher, in order to encourage the producers of rubber to produce as much as they could—we changed our price to 18½ cents flat, Singapore, we taking the cost, in addition to that, of getting it here.

The rubber is costing us in the neighborhood of 21 cents.

I do not know how much we are going to continue to get, and none of us do, and if it is feasible to get a substantial supply of this rubber, in addition to what we are doing, I think it is well worth considering. Frankly, I have not been convinced that it is a very practical proposition, but that does not mean that it is not. I believe that we can, by the use of synthetic rubber and building additional plants, provide ourselves with sufficient rubber, certainly by using the rubber over and freshening it some.

Senator DOWNEY. Mr. Chairman, may I ask a question?

The CHAIRMAN. Certainly.

Senator DOWNEY. Mr. Secretary, when you state that we have 500,000 tons in stock piles, that includes what is afloat?

Secretary JONES. No.

Senator DOWNEY. That is what is in the United States?

Secretary JONES. We have about 125,000 tons, additional, afloat.

Senator DOWNEY. Well, 600,000 tons is about what we have been consuming annually?

Secretary JONES. That is correct, until 1939 or '40 it was more.

Senator DOWNEY. Yes.

Secretary JONES. This year it is running about 45,000 tons a month.

Senator DOWNEY. Of course, as I understand the rationing program of O. P. M.—they are already developing it—we are going to materially cut down on civilian use.

Secretary JONES. I think so.

Senator DOWNEY. As a matter of fact, I think they are going to arrange it so that there will be no use except for the necessary commercial use, from now on; that is what I have been told from O. P. M.

Now, Mr. Secretary, the testimony was given to us, several months ago, that synthetic rubber produced so far did not permit a program and was not anywhere near the equal of raw, crude rubber for general automotive purposes.

Secretary JONES. It is a little heavy for tires, I am told.

Senator DOWNEY. We were told that—I have forgotten—either for cord or fabric, the inside or the outside, I cannot recall, but there was testimony here before the committee, and it was to the effect that while the synthetic rubber was used with other rubber it would be perfectly satisfactory, but when used by itself, it just was not sufficient or satisfactory for automobile tires.

Secretary JONES. I have had some synthetic rubber tires tested by the Bureau of Standards. One tire tested out at about 90 percent, and the other at a little less, maybe 85 percent, efficiency, War Department specifications.

Senator DOWNEY. May I ask, Mr. Secretary, if the whole tire was made of synthetic rubber?

Secretary JONES. I am not certain about that, but that is my understanding. We were using War Department specifications, which are pretty severe specifications, in the test.

Senator DOWNEY. I understand that—maybe I have been misinformed on that—that only a portion of that tire was synthetic rubber.

The CHAIRMAN. Right on that point, Mr. Secretary, is it your opinion that the amount of rubber we have in storage in the United States at the present time, that is, the natural-grown rubber, combined with that rubber which is on the way here, and if we succeed in getting it without interference or sinking, if that were utilized with the synthetic rubber, do you not think that we would have enough on hand to last 3 or 4 years?

Secretary JONES. Of course, if we continue to get fair supplies from the outside—

The CHAIRMAN. If we do not get any more from outside, that is the question, just what we have on hand and what is on the way here—could that not be utilized, with synthetic rubber, to carry us over for 3 or 4 years?

Secretary JONES. I think when you reduce it to 2 to 3 years, I would say "Yes."

The CHAIRMAN. Now, one question on that point I wanted to ask is: I wonder, Mr. Secretary, if you happen to know the amount of, or

number of pounds of rubber that is created annually, produced annually, in Mexico and Central and South America?

Secretary JONES. I do not know, but it is very little.

The CHAIRMAN. Do you happen to know that, Doctor?

Dr. BRANDES. What was the question, Mr. Chairman?

The CHAIRMAN. I asked, if you knew the number of pounds of rubber created from natural sources, so to speak, in Mexico and Central and South America, annually.

Dr. BRANDES. We can give an approximation.

The CHAIRMAN. What is that?

Dr. BRANDES. Mexico, at present, has an annual production of rubber, from the wild guayule shrub, in Coahuila and the surrounding states, is 5,000 tons per year at present. The factory at Torreon, Mexico, is being doubled and its capacity is being increased, and that annual production will all come to the United States.

The CHAIRMAN. From the utilization of the wild shrub?

Dr. BRANDES. From the utilization of the wild shrub, it will go to approximately 7,000 tons annually; 7,000 tons is regarded as the maximum that can be exploited from the wild shrubs and at the same time provide for some manner of renewal of the plants.

In the Amazon Valley, the amount of wild rubber being exported today is something over 14,000 tons annually, from Hevea, which is Pará rubber, or from the Pará rubber tree.

The CHAIRMAN. Yes; go on.

Dr. BRANDES. That could be increased, with proper planting and financing, perhaps fivefold.

The CHAIRMAN. Yes; but over what period of time would it take?

Dr. BRANDES. From 18 months to—perhaps in 18 months or a little more, it could be increased fivefold, with adequate financing.

The CHAIRMAN. To 14,000 tons?

Secretary JONES. That is, you could multiply that figure by five, within 18 or 20 months?

Dr. BRANDES. Yes.

Secretary JONES. How?

Dr. BRANDES. Well, the rubber is there, and it is merely a case of getting it out.

Secretary JONES. You think there is that much growing there now?

Dr. BRANDES. Wild rubber, yes; perhaps as much as 20,000 tons a year could be obtained from another rubber tree, which is in addition, it is just known as the castilla rubber tree.

The CHAIRMAN. That prevails in Brazil?

Dr. BRANDES. There is some in Brazil, but most of the rubber is in the countries bordering on the Amazon Basin, that is, Peru, Ecuador, and Colombia, and in the Central American countries from Panama north to southern Mexico.

I should say that 20,000 tons could be exploited from wild castilla trees, beginning within 18 to 20 months from now.

The CHAIRMAN. In addition to that 15,000 tons coming annually from Brazil?

Dr. BRANDES. Yes, sir.

The CHAIRMAN. And Paraguay and Ecuador and southern Venezuela?

Dr. BRANDES. Southern—

The CHAIRMAN. Southern Venezuela.

Dr. BRANDES. Yes.

The CHAIRMAN. I understand that they are developing and producing some rubber in Costa Rica, and I understand that there has been an extensive experiment conducted there by the Department of Agriculture.

Dr. BRANDES. Yes; we have a long-range program of establishing Hevea rubber in no less than 13 countries in the central and northern part of South America.

The CHAIRMAN. Are we producing anything, commercially?

Dr. BRANDES. We only started about 18 months ago, but we have already planted some eight to twelve million trees in nurseries.

Senator DOWNEY. Mr. Chairman, if I may interpose a minute, I think that we are too optimistic in the United States.

Now, it seems to me that we have to assume, here, to be safe, that rubber is going to be cut off. I think we ought to assume that, and you know, if it is cut off, the problem will fall on us, and we will have to look to Central and South America, and also, if that is done, I think our Government anticipates that in order to keep South America and Central America going, instead of taking all of the rubber from those countries down there, it may be that we will have to supply them with fifty to one hundred thousand tons, instead of continuing to get everything out of them; the problem will be on the other hand, because they need a certain amount of rubber which they have been getting in from the middle areas.

Senator GURNEY. I think that all of the tires in Mexico come from the United States and they probably use 7,000 tons which we make up for them.

May I make one other comment, and that is, when we had our synthetic rubber hearing, we had testimony by someone, I believe from one of the rubber companies, that Germany is making its tires out of reclaimed rubber, and about 65 percent of that was synthetic rubber, so far they are not able to use more than 65 percent synthetic rubber in the making of a tire, but they did use reclaimed rubber and had to put in about 10 percent of raw rubber, and the balance was reclaimed, but that was the percentage they used.

Senator WALLGREN. I might ask, what is the normal content, now?

Senator DOWNEY. We have about 600,000 tons in this country now, but the demand will be tremendously increased.

Senator WALLGREN. What do you anticipate production might be from this crop that you are speaking of, after 4 years?

Senator DOWNEY. Within 2 or 3 years, it would be a very substantial thing, anything you want, practically—practically any amount.

Senator WALLGREN. About how much per acre?

Senator DOWNEY. About a ton per acre, at the end of 4 years.

I might say that possibly the information I have is not correct, and I think we ought to call O. P. M. on it, because I think it is very vital and I understand that O. P. M. states that if our rubber supply is cut off, we have even less than 2 years' supply, even with the rationing, that it will not last 2 years, so if we do not have the Pacific open, or additional sources of rubber supply coming in, we would be in a pretty desperate condition.

Now, that is a fix.

The CHAIRMAN. What figure did O. P. M. give you?

Senator DOWNEY. That figure differs from what the Secretary gave us, the O. P. M. secretary gave me less than 2 years.

Secretary JONES. Two years?

Senator DOWNEY. With all the civilian uses cut off and nothing but the necessary commercial uses allowed and what we need for lend-lease, for all over the world.

Further, I might say that the Army advised me today of their needs and we will be lucky to get any more rubber, even for the Army and Navy.

Secretary JONES. I can get in touch with O. P. M., I do not think there will be any difficulty there, because we get pretty close cooperation from them.

Senator DOWNEY. I understand that.

Secretary JONES. I thought we could get along for from 2 to 3 years, I believe we could, particularly with some rationing. Of course whatever quantity we will get will help; I think we will get some more rubber; it may have to go around the world, the other way, and experience some more hazards, but I think we will get some more rubber; but even so, if it is feasible to get rubber this way, I think it should be considered very seriously, and when it comes down to the actual need for the rubber, it really does not make any difference whether it is 30 cents or 50 cents a pound, if you need it, so we should consider this procedure seriously, if we have to have it.

Senator DOWNEY. Mr. Jones, when will the first synthetic-rubber factory begin to yield a product?

Secretary JONES. They are producing some small amount now.

Senator DOWNEY. Two or three thousand, but what about the 4 plants with their capacity of 10,000?

Secretary JONES. I should say in about 12 months—yes; it was about 6 months ago when they started, and they said it would take about 18 months.

Senator DOWNEY. I understood from the men that testified before the committee that they still had some very serious laboratory problems and problems of just exactly the quality they would produce.

Secretary JONES. Yes; I have never been satisfied with the information given to me, that any particular formula is the right one. There have several different methods of making rubber, is that not true, Doctor?

Dr. BRANDES. I am not an authority on synthetic rubber.

Secretary JONES. I think they have, the different companies make it with different procedures and different methods. One company has this patent and another company has that patent. One company claims it can make synthetic rubber for 10 cents after they get it in production; I do not know whether they can or not, but it is one of the big companies. I have thought that it would cost us a good deal more than natural rubber.

The CHAIRMAN. Was that Brazil, from which we propose to get 15,000 tons annually, or rather, are getting it now—was it Brazil that we could get around 20,000 tons additional?

Dr. BRANDES. I said that now we are getting about 14,000 tons, that is being produced now, and I think the Amazon Basin could be increased about fivefold, and that would bring it up.

The CHAIRMAN. From the adjoining countries?

Dr. BRANDES. Yes; and Brazil.

The CHAIRMAN. What would that bring it up to, the total tonnage, annually, of all South America?

Dr. BRANDES. All wild rubber from South American countries?

The CHAIRMAN. Yes.

Dr. BRANDES. It is a fair statement to say that it would be a maximum of 95,000 tons.

The CHAIRMAN. 95,000 tons?

Dr. BRANDES. Yes, sir.

The CHAIRMAN. We do not get that much now?

Dr. BRANDES. No, sir; that is a statement of potentialities, potential production from wild trees already existing.

The CHAIRMAN. What would that cost a pound?

Dr. BRANDES. I can only make a guess as to the price that will be needed to stimulate that much production.

The CHAIRMAN. I understand that.

Dr. BRANDES. I should say a fair price would be a higher price than the present price of rubber.

The CHAIRMAN. And what is that?

Dr. BRANDES. The present price is 22½ cents on the New York market. In order to stimulate production, the price would have to be higher than that.

The CHAIRMAN. Anywhere from 20 to 35 cents a pound, and you can produce it in California for 20 cents?

Senator DOWNEY. Yes, sir.

Senator CHANDLER. In June 1940, at the hearing upon a bill introduced by the Senator from California, Mr. Downey, we heard witnesses with respect to the rubber situation, and I quote from the statement of John L. Collyer, who was at that time president of the B. F. Goodrich Co., as follows:

Mr. COLLYER. In the year 1939 our country consumed just under 600,000 tons of rubber; 592,000 tons, to be exact.

And then Senator Downey asked, "You mean raw rubber?" and Mr. Collyer replied:

Raw rubber. And we consumed in addition to that 170,000 tons of reclaimed rubber; that is, taking old tires * * *

and he said, further on, that we used 770,000 tons of rubber altogether, 170,000 tons of which was reclaimed. Then in answer to the specific question, What if we were faced with a situation similar to the one we are faced with now, he indicated that we might be able to make 100,000 tons of rubber in this country, but said it would take 3 to 4 years of planning and would take a year to get one plant in operation, and then, that assumes that we had a good supply on hand.

Senator AUSTIN. Were you going to speak, Senator Chandler?

Senator CHANDLER. If you don't mind, Senator.

He said that you could reclaim rubber, but that every time you did it, you could not reclaim it any more. Mr. Schade made the statement—

You cannot reclaim it over and over again. Each time you use reclaimed rubber, you must use 70 percent of natural rubber with it, so that the quality is not dropped. The second time you use it you have 70 percent of fresh rubber and only 30 percent of reclaimed rubber.

Now, he indicated that in 1 year that he had been able to reclaim, as you recall, 170,000 tons which they used in this country. I thought it

would be interesting to call your attention to this fact. I know that Senator Downey was interested, and I attended the hearings and asked some of the questions, and those were some of the answers.

I would like to ask the Secretary if they have felt like taking the matter up with the president of the B. F. Goodrich Co. as to how much could be saved.

Secretary JONES. What was the question?

Senator CHANDLER. Have you considered taking up the matter of making this rubber with the big companies, like the B. F. Goodrich Co. and others?

Secretary JONES. They are the ones that are doing it.

Senator CHANDLER. They are?

Secretary JONES. They are building their plants; they are.

Senator DOWNEY. Ten thousand tons output, I believe.

The CHAIRMAN. Gentlemen, pardon the interruption; this is very interesting, and I would like to get all of it into the record for the other members that cannot be here; we are having a vote on the floor now, and if the Secretary will pardon us, we will recess while the members go on the floor and vote and will come right back.

(Whereupon, following the taking of a short recess, the hearing was resumed.)

The CHAIRMAN. Now, gentlemen, if you are ready, we will proceed.

When we discontinued, Senator Chandler was providing the members of the committee with a very interesting bit of information, and I thought a continuation of that ought to be embodied into the record.

Senator CHANDLER. Mr. Chairman, I would like to have some of this testimony—there is not very much of it—incorporated in the record, because this contains valuable information on what we propose.

What do you say, Senator Austin?

Senator AUSTIN. I think that is a good idea.

The CHAIRMAN. If there is no objection, it will be embodied in the record.

(The document entitled "Defense of the United States and Other Nations in the Western Hemisphere (Rubber), S. 4082," will be found attached to this record as appendix A thereof.)

The CHAIRMAN. Senator Downey?

Senator DOWNEY. I would like to ask Congressman Anderson to state his views on this matter.

The CHAIRMAN. We will be very glad to have you, sir.

STATEMENT OF JOHN Z. ANDERSON, EIGHTH CONGRESSIONAL DISTRICT OF CALIFORNIA

Senator DOWNEY. Mr. Anderson, will you please give your name and address and official position for the record?

Mr. ANDERSON. John Z. Anderson, Congressman from the Eighth Congressional District of California.

Senator DOWNEY. And the Salinas area is within your congressional district?

Mr. ANDERSON. That is correct.

Senator DOWNEY. And you have made an investigation of the possibility of developing the rubber supply from the guayule shrub, have you?

Mr. ANDERSON. That is correct.

Senator DOWNEY. Now, any comments you may care to make which would be of value to the committee will be appreciated, sir.

Mr. ANDERSON. Senator Downey, knowing that this hearing was going to be held this afternoon, I took the time this morning to wire the president of the Intercontinental Rubber Co., of New York, as to how much seed was available, and how many acres could be planted with that seed, and the wire I received in reply is at variance with the testimony offered here today, and I think it should go in the record and I presume a medium can be taken as between the figures presented here today.

It has been testified that there is enough seed available to plant 110,000 acres and Dr. Brandes, when we inquired of him, thought that there was enough to plant 70,000 acres and the president of the company, that is, the Intercontinental Rubber Co., wired me that there is now available 23,000 pounds of guayule seed, which is sufficient to plant 50,000 acres of the shrub.

Now, he also states that there is available in the seedling nursery at Salinas, enough for the planting of 2,000 acres or more of seedlings.

There is only one further observation that I would like to make, Mr. Chairman, and that is in response to inquiries that were made by one of the members of the committee a short time ago, with reference to the need for such a program; and also inquiries were made as to the cost of the rubber, and we find that there is a cost of 6 cents, and then the present market is 22½ cents for the rubber here in the United States.

I think that is because we are in the hands of an international rubber monopoly and the only thing to do in that case, is to produce rubber of our own, and if we did that, just a percentage of the annual rubber needed, then we would have something through which we could bicker with this international rubber monopoly and bring the price of that rubber down here in the United States.

Of course, under the present emergency conditions, we have an absolute need for insuring against any shortage. Further than that, I do not think I have anything to offer unless the committee has some question that they would like to ask.

The CHAIRMAN. Are there any questions, Senator Downey?

Senator DOWNEY. No, sir.

The CHAIRMAN. Senator Chandler?

Senator CHANDLER. No, sir.

The CHAIRMAN. Senator Gurney?

Senator GURNEY. I would like to ask, the facts are not clear because there have been different figures given in our assumptions as a result of the testimony of the other witnesses have thrown us off, apparently, so, according to your figures of the amount of seed available and the acreage available, that was a wrong hypothesis.

Mr. ANDERSON. Apparently that is correct. The information, apparently, was not quite accurate.

Senator AUSTIN. It is something more than that. As I now understand it, we were making erroneous calculations when we were considering the acreage of the bush plant, the separated plant, we were wrong when we considered 110,000 acres, were we not?

Mr. ANDERSON. I believe that is correct.

Senator AUSTIN. We calculated, upon that acreage, 1,000 tons——

Senator GURNEY (interposing). Thousand tons?

Senator AUSTIN. Thousand pounds, it should be, 1,000 pounds per acre for the first year, so that we used the wrong figure for calculation, did we not?

Mr. ANDERSON. That is because the seed, when broadcast, are necessarily planted much closer and more heavily per acre than if the plants are put out for seedlings, such as the little one in the jar there.

In that case, the 110,000 pounds of the seeds would go much farther.

Senator AUSTIN. But if we use your figures as you have now stated them, for the acreage that could be planted in the nursery, and the sum upon which we calculated is 1,000 pounds a year, it would be very small and insignificant, would it not?

Mr. ANDERSON. Yes, sir. It seems to me, however, that the wise move for us to make is to plant as soon as possible every available pound of seed that we have, in the ground as an insurance policy and they will see we have that seed available in the fall and we could get that 10 for 1.

Senator AUSTIN. Then it is your thought that we should do that, regardless of the emergency?

Mr. ANDERSON. Yes, sir; because it would be a good insurance policy to have your rubber growing, and to have your shrubs available for emergencies, because you can refine it into rubber any time that you want to.

The CHAIRMAN. As a matter of fact, in pursuance to what Senator Austin said, would it not be a good agricultural policy to follow?

Mr. ANDERSON. Absolutely, sir.

The CHAIRMAN. And bring about a diversification of crops?

Mr. ANDERSON. That is right.

The CHAIRMAN. We all know that within a few years, certainly, we are going to have to cut down on our cotton production in the United States as a result of the increase in cotton production in Egypt and in parts of Africa and the production and development of cotton all over the world, with which you gentlemen are doubtless familiar; and Brazil, particularly, is coming along with a fine crop, I understand, and they are increasing their production every year, and even in China, when things are settled there.

So, in considering this we may further take into consideration the fact that in the future it might be a fine substitute for a cotton crop, say, in North Carolina, to use that as an example; we are now growing pine trees there for papermaking, which is something new; is that not true?

Mr. ANDERSON. Yes; that is one thing that should be looked over very carefully.

I thank you for this opportunity, Mr. Chairman and members of the committee.

Senator GURNEY. May I ask one question?

The CHAIRMAN. Certainly.

Senator GURNEY. Congressman Anderson, you have got enough seed now for 50,000 acres?

Mr. ANDERSON. We have 23,000 pounds at the present, according to the president of Intercontinental Rubber Co., which is enough for planting 50,000 acres.

Senator GURNEY. All right, now; will that be 50,000 acres, broadcast, or as seedlings?

Mr. ANDERSON. Fifty thousand acres of the seedlings.

Senator GURNEY. And if you planted it broadcast, rather than as seedlings, the acreage would be reduced; but if it were planted as seedlings, then it would be broadcast, and at the end of the first year, taken up and put out in the field as seedlings, and then you would have your 50,000 acres.

Mr. ANDERSON. That is right.

That is information that came from the president of the Intercontinental Co. and I presume that to be the fact.

Senator AUSTIN. If you cropped that at the end of the second year, you would get more than 1,000 pounds.

Mr. ANDERSON. Yes, sir.

The CHAIRMAN. Per acre?

Mr. ANDERSON. Just a minute, I do not know that you would get more than 1,000 pounds an acre, because you would not have as many acres as you would if it were seeded broadcast, rather than as seedlings.

You see, when they are planted, at first, they are allowed to grow that first year and then they are taken up and planted, on that 4-year cycle, in squares approximately 30 inches apart.

Senator AUSTIN. Can you tell us what we are to expect as a product at the end of the first year of the life of the plants planted seedling?

Mr. ANDERSON. How many pounds per acre?

Senator AUSTIN. Yes.

Mr. ANDERSON. I could not give you that, except that I believe I can secure the information for the record, if you desire.

Senator AUSTIN. No; it is not that important, it seems.

Senator DOWNEY. Mr. Chairman, I might ask the Representative one further question.

Would you give your opinion to the committee, if they desired to encourage something along this line, as to what would be the best method in order to proceed with the farmers in the country in the planting of this shrub?

Mr. ANDERSON. In answer to that, I will have to refer to the legislation I have introduced in the House of Representatives, to form a corporation under the Department of Agriculture to acquire immediately all of the Intercontinental Rubber Co.'s interests in the United States and its plants and its seed.

That puts the Government in the rubber business, and the Government would then make its bicker with the farmers, as to how much it was going to pay, in rent per acre, and that would have to be established on a basis of what the land was worth.

It can be planted, as Dr. Brandes brought out, in bad land, good land, not necessarily high-priced land, it does not have to be extremely valuable.

The CHAIRMAN. Is there any connection with that suggestion, that would be of interest to the farmers in connection with erosion control? That can be planted on a hillside as well as on a perfectly level piece of land?

Mr. ANDERSON. It could be planted, but it has been found to do much better on the level ground, as it is more difficult to cultivate, otherwise.

The CHAIRMAN. What about the strength taken away from the land?

Mr. ANDERSON. That is a peculiar thing about this shrub. Every place this shrub has been grown in the past has been enriched and built up and the soil has produced more beans and more of any crop after guayule was planted there.

The CHAIRMAN. It adds to the productive strength of the land?

Mr. ANDERSON. That is right.

The CHAIRMAN. In the initial planting of these plants, do you have to use fertilizers?

Mr. ANDERSON. No.

The CHAIRMAN. No?

Mr. ANDERSON. It is not necessary to use it.

Senator CHANDLER. Can you continue to plant it year after year on the same land?

Mr. ANDERSON. Yes, sir.

Senator CHANDLER. And it is also good for a change?

Mr. ANDERSON. It is a good rotation crop.

The CHAIRMAN. Is it better that way?

Mr. ANDERSON. In one way, let me say that if you have it in a 4-year cycle, say you have 10,000 acres planted, then you would take 2,500 acres the first year, 2,500 acres the second year and so on, using one-quarter of your acreage each year, so that by the time you harvested your crop on the first section, you would have your last quarter planted and then, at the end of 4 years, you could replant and start your cycle over.

Senator CHANDLER. What would you plant after you had completed your cycle?

Mr. ANDREWS. You could go right back and plant that shrub again because of its soil-building characteristics.

Senator CHANDLER. Even for itself?

Mr. ANDERSON. That is correct.

Senator CHANDLER. Well, that is certainly all right, then.

Mr. ANDERSON. It is a rather amazing plant.

Senator CHANDLER. Usually plants like that take out the things they use.

The CHAIRMAN. Do you care to make any more observations, sir?

Mr. ANDERSON. No, sir; unless you may have some questions you would like to ask, and I again thank you for this opportunity.

The CHAIRMAN. Have you any questions—any of you Senators?

(No response.)

The CHAIRMAN. Thank you very much, gentlemen, for appearing here today.

(Whereupon, at 4:45 p. m., the committee proceeded in executive session.)

APPENDIX A

DEFENSE OF THE UNITED STATES AND OTHER NATIONS IN THE WESTERN HEMISPHERE

[RUBBER]

Hearing before the Committee on Military Affairs, United States Senate, Seventy-sixth Congress, third session, on S. 4082, a bill to provide for the defense of the people of the United States and for the defense of such other nations in the Western Hemisphere as may desire the cooperation and assistance of the United States

UNITED STATES SENATE,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C., Friday, June 14, 1940.

The committee met at 10:30 a. m., Senator Morris Sheppard (chairman) presiding.

Present: Senators Sheppard, Thomas of Utah, Minton, Hill, Downey, Slattery, Chandler, Austin, Gurney, Holman, and Thomas of Idaho.

The CHAIRMAN. The committee will come to order. We have before us this morning Senate bill 4082, introduced by Senator Downey, to provide for the defense of the people of the United States and for the defense of such other nations in the Western Hemisphere as may desire the cooperation and assistance of the United States. The bill will be set out in the record at this point.

[S. 4082, 76th Cong., 3d sess.]

A BILL To provide for the defense of the people of the United States and for the defense of such other nations in the Western Hemisphere as may desire the cooperation and assistance of the United States

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated the sum of \$35,000,000,000, out of any money in the Treasury not otherwise appropriated, during the fiscal years, beginning July 1, 1941, to and including June 30, 1946, to be expended for the national defense, under the joint direction of the Secretary of War and the Secretary of the Navy.

SEC. 2. For the purpose of purchasing, conserving, developing, and manufacturing strategic war materials, there is hereby authorized to be appropriated the sum of \$1,500,000,000, out of any money in the Treasury not otherwise appropriated, during the fiscal years beginning July 1, 1940, to and including June 30, 1945, to be expended under the direction of the Secretary of Commerce.

SEC. 3. For the purpose of constructing a highway from the United States to the Panama Canal, subject to the consent of the Government of Mexico and of the governments of the other nations through which it may pass, there is hereby authorized to be appropriated the sum of \$2,500,000,000, out of any money in the Treasury not otherwise appropriated, during the fiscal year beginning July 1, 1940, to and including June 30, 1945, to be expended under the joint direction of the Secretary of State and the Secretary of Commerce.

SEC. 4. That the President and the Secretary of State are hereby authorized in their discretion to purchase silver from the Government of Mexico, at such times and in such amounts as they may deem advisable, at the price currently being paid to the producers of domestic silver.

SEC. 5. The Department of Commerce shall, within thirty days, report to Congress feasible methods of financing a national super highway system on a self-liquidating basis adapted to the military defense of the United States, and in such report shall inform the Congress the amount of surplus capital, if any, that may be expected to be available for the construction of such highway system during the next 10-year period.

SEC. 6. The limit of Federal indebtedness is hereby increased to \$55,000,000,000.

SEC. 7. The President is hereby requested, within 60 days from the date hereof, to present to Congress a plan to create greater governmental efficiency consistent with freedom and democracy.

There has been no report as yet from the War Department. Senator Downey, I will ask you to take charge of calling the witnesses, and let me know whom you wish to hear first.

Senator DOWNEY. Thank you, Mr. Chairman. Mr. Harter, who is a Representative in Congress from Ohio, has told me that Mr. Collyer has a later appointment with one of the departments here in Washington, so I would suggest that Mr. Collyer be called first.

The CHAIRMAN. We will be glad to hear Mr. Collyer at this time. Will you state your full name and address and the position you occupy, for the record?

**STATEMENT OF JOHN L. COLLYER, PRESIDENT, B. F. GOODRICH CO.,
AKRON, OHIO**

Mr. COLLYER. My name is John L. Collyer, president of the B. F. Goodrich Co., Akron, Ohio.

Senator DOWNEY. Mr. Collyer, we have been advised by reports in the press that you recently made the statement that the Goodrich Co. has been developing a formula for the production of a synthetic rubber, and that you have actually been producing such synthetic rubber, and, as a matter of fact, have used tires produced from it, actually used them on cars. We would appreciate it if you would give us general information, first, concerning the accuracy of that statement.

Mr. COLLYER. Mr. Chairman and gentlemen, I might speak very briefly and then possibly that would suggest some questions that you would like to ask. Our company started some years ago on a very active research problem in synthetic rubbers. We have the oldest laboratories in the rubber industry, and we have many major developments in the rubber industry to our credit, and this was a search for materials to be used either to replace rubber or to supplement the ordinary use of rubber. During that investigation we discovered and have marketed commercially the material that today is used for special purposes, but in an emergency could replace natural rubber. That material is known as Koroseal, and it is used extensively today in insulation of cables, but in an emergency it could be used for flooring and heels and miscellaneous uses. Another normal use today is as a coating for fabrics, table cloths, and clothing. Today we are producing that material at the rate of 3 tons a day, and by the end of the year we will have facilities installed to produce it at the rate of 6 tons a day.

Last year the total consumption of what we call "synthetic rubbers" in this country was 1,700 tons.

Senator HOLMAN. A day or a year?

Mr. COLLYER. A year.

Senator HOLMAN. Something over 1,000 tons a year?

Mr. COLLYER. Yes. Perhaps I should at this point just touch briefly on natural rubber.

Senator DOWNEY. Yes; I wish you would.

Mr. COLLYER. In the year 1939 our country consumed just under 600,000 tons of rubber; 592,000 tons, to be exact.

Senator DOWNEY. You mean of the raw rubber?

Mr. COLLYER. Raw rubber. And we consumed in addition to that 170,000 tons of reclaimed rubber; that is, taking old tires and really devulcanizing them and bringing the rubber back to its natural state. So the total consumption of natural rubber, as we call it, coming from the plantations and reclaimed rubber coming from old tires, was 600,000 plus 170,000, or 770,000 tons altogether. And the synthetics consumed in this country for special purposes amounted to 1,700 tons. Of course, that is infinitesimal, and the reason is perfectly obvious, since natural rubber in the last 15 years has varied in price from 5 cents a pound to \$1.25 a pound. Synthetic rubber, our experience has been, making it in limited quantities, costs today, roughly, 60 cents a pound. So, naturally, the only place that synthetic rubber has a place in the economic picture today is where it has some properties superior to rubber, and the synthetic rubber consumed in this country today is used principally for acid resisting and in gasoline hose, and specialists are continually working these uses out.

Senator HOLMAN. Mr. Collyer, may I interrupt there one minute? You say the price of rubber over the last year has been from 15 cents to 20 cents a pound?

Mr. COLLYER. Fifteen cents to 24 or 25 cents a pound. The point I wanted to make is that we had a total consumption of natural rubber and reclaimed rubber of 770,000 tons and the synthetic rubbers 1,700 tons. And, going back to our own company's plant, in Koroseal we are now doubling the capacity, because we are reaching out for new uses where this material has certain properties that are superior to rubber, and Koroseal would come in a class of what we call synthetic rubber today. Then the recent development of our company that you refer to was with material that could be placed in tires, and also in some of the other major lines of rubber goods.

Senator DOWNEY. What do you call that?

Mr. COLLYER. Ameripol, a coined word from two other words. "America" and then one of the process terms "polymerization," which is a joining of molecules. That is the derivation of it.

Senator DOWNEY. May I ask you, Is that substance as satisfactory for the manufacture of tires as is crude rubber?

Mr. COLLYER. That takes some qualifying. As I mentioned, we started on our development 14 years ago, and for the last 6 years we have been working on the development for replacing the tire rubber. Naturally, with the economic position being as it is, there has been no demand for such a rubber, because today we have not found that it has qualities greatly superior to natural rubber for tire making, but over a year ago we actually had taken this material and made up the treads and the side wall, which is the outer part of the tire, and have run those tires.

Senator DOWNEY. You did not use that for the carcass of the tire?

Mr. COLLYER. No; but we have done work—there is a great deal

of development work to be done still, both in, you might say, the raw material side from which the synthetic rubber is made, then in the manufacture of the synthetic rubber, and then in the use of that synthetic rubber, and we have been doing that work in all three fields.

Now, as to actually making tires of synthetic rubber, our synthetic rubber today is very limited in quantity, and it costs three times the present price of natural rubber, three times 20 cents and, of course, we consider 20 cents a high price for rubber. So the tires that we make will be more costly than tires made of natural rubber. We have actually set the selling price of those tires at about 30 percent in excess of the natural-rubber tire, and we are not optimistic as to what the results may be, but we do feel that there are enough people in this country who realize the rubber situation and the seriousness of it who may feel, "Well, this is going to accelerate the necessary development work."

Senator DOWNEY. Mr. Collyer, let me understand you there. You have not yet wholly made your tires out of this product yourself, but only the tread?

Mr. COLLYER. No; we have made tires in which our Ameripol replaces natural rubber in proportions varying from 50 percent to 100 percent. Now, the carcass is more difficult than the tread. I want to say that perfectly frankly; and taking tires as a whole in this country, that accounts for over 70 percent of all the rubber consumed. Then, taking the tire itself, the tread and side wall account for more than 60 percent of the rubber consumed in tires. So if you take the tread and side wall alone, it is about 45 percent of all the rubber consumed in the country. So if you can satisfactorily do the tread and side wall, that means that you have taken a big step forward in facing an emergency. But we are not stopping there. We are going on with our experiments, right up to 100 percent.

Senator DOWNEY. Now, let me ask you this, Mr. Collyer: Have you actually manufactured tires entirely out of your Ameripol?

Mr. COLLYER. Yes, sir.

Senator DOWNEY. And will those tires at least be, to a certain degree, satisfactory?

Mr. COLLYER. We do not claim that, sir.

Senator HOLMAN. May I ask this: Regardless of cost, just as a material, how would they compare? What would be your opinion, eliminating the cost element in the problem?

Mr. COLLYER. May I answer that under two headings?

Senator HOLMAN. All right.

Mr. COLLYER. First, the tread and side wall, which is over 45 percent of all the rubber consumed in the country, we are actually going to try to sell tires in July, and they are going out with our company's name, and that means that those tires are going to be competitive with other tires. The complete replacement of rubber still needs considerable work before that can be done. We have made tires; we have tested tires; but whether it is going to take 6 months or a year or even 2 years to make them fully competitive I cannot say at this time.

Senator HOLMAN. Is it your opinion, if I may ask, that this synthetic rubber for tread and side wall is equal to or superior to an all-rubber tread and side-wall tire?

Mr. COLLYER. I should not like to claim superiority at this time. One of the development stages which is using present rubber-manu-

facturing machinery is using synthetic rubber, or our Ameripol. Our experience has been that synthetic rubber is satisfactory for tires, but it is a somewhat harsh material, and one of the problems is to work in the mills, to do all the things we do with natural rubber, so we have had to make some modifications in the compound that, you might say, does not give all the abrasive qualities that are in synthetic rubber. As time goes on, we will alter that, and it is certainly well within the realm of possibilities that we will have synthetic rubber that is superior for the tread and side walls.

Senator DOWNEY. Mr. Collyer, I know it is not quite fair to ask a man to hazard a prophecy in these matters, but is it your hope that your chemists may be able within the course of a year or 2 years to so perfect your product that it might be satisfactory for the entire tire, including the carcass?

Mr. COLLYER. Yes. And coupled with that is our hope that we shall be able to sell a sufficient quantity of the Ameripol tires so as to give us the production to accelerate progress by having the actual experience, you might say, outside of the laboratory on a semicommercial basis.

Senator DOWNEY. Senator Thomas, won't you come up here? Senator Thomas is an expert on this question. This is Mr. Collyer, president of the Goodrich Co., testifying, Senator Thomas.

Now, Mr. Collyer, will you repeat again what production you have at the present time of your synthetic rubbers and what you hope to have within a year?

Mr. COLLYER. We are making two main types of synthetic rubber today. One is called Koroseal, which is commercially successful today. It is used for special purposes, the principal of which is insulation of cables. And in mentioning Koroseal I said that it was in a class of synthetic rubbers that have been consumed in this country in recent years, those materials that have qualities superior in certain respects to natural rubber, so they command a higher price, and that is not commercial for rubber tires, because synthetic rubber of that type costs more to make. At present we have a capacity of Koroseal of 3 tons per day, and we are doubling that capacity. We will have our increased capacity in the fall, which will be 6 tons per day, and taking 360 days a year—this is a continuous process—that is 2,100 tons, and the total consumption of materials of that type in this country last year is given as 1,700 tons. That is a special field.

Then, independent of that, as a result of our long research work, I said we started 14 years ago, and for the last 6 years we have been actively engaged on material to replace the rubber in tires, and there we now have capacity for a ton and a half a day. We are running today just under a ton, and by the end of the year we are going to have 6 tons a day of that material. In other words, we shall have a capacity of synthetic rubber of those two types more than double what the total consumption was.

Senator DOWNEY. When you say "end of the year," you mean the end of this calendar year?

Mr. COLLYER. Yes. But even that, of course, is negligible when you take into consideration the total consumption of crude rubber. And I mentioned that there is really no economic need for synthetic rubber today to replace natural rubber, because the natural rubber is

so much cheaper than what we have been able to manufacture synthetic rubber for.

Senator DOWNEY. In connection with that, I might just interject this comment. I notice that Japan is already beginning the fight for control of the rubber industry in the East Indies. There was a long article in the paper last night indicating very clearly to me that Japan figures now that they are going to keep other people out of the East Indies.

Mr. COLLYER. Could you give the committee any idea as to how rapidly you might hope to increase the production of your rubber products, if money was not to be considered and you could sell whatever you produced at a profitable price? Could you give us any idea of how rapidly, physically, it might be carried on until you were producing in a major way?

Mr. COLLYER. That is a tall order, naturally, and depends on many things. First, the raw materials, and, as you know, the main raw materials come from petroleum and natural gas, and that is made up into what we call butadiene. Then the second problem is to take the butadiene, and make that into synthetic rubber. The third problem is to take the synthetic rubber and be able to develop processes as we have them today for natural rubber.

Now, naturally, we have investigated the first field, and we have a great deal of experience in the second two fields. And I do not know what you mean by "producing in a major way."

Senator DOWNEY. Mr. Collyer, I am looking forward to the possibility that our total supply of crude rubber may be cut off, and then the condition this Nation would be in with about 5 months' supply of rubber on hand.

Mr. COLLYER. If that happens, we would just have to roll up our sleeves and give it hell.

Senator DOWNEY. But to what extent could you "give it hell"? If you were under pressure and were given priorities of various kinds, say, on material parts, could you get it up to 25,000 tons in a year of what you are now producing?

Mr. COLLYER. We have made studies, and we look on, you might say, a commercial unit as 100 tons a day, with a continuous process for 360 days a year. That would be 36,000 tons. We are confident that we could undertake the engineering and the construction of the plant and furnish the technical skill, and so on, to do that whole job in, say, a year.

Senator DOWNEY. You do have, I understand, a bottleneck in chemists for large operations.

Mr. COLLYER. You are speaking of the personnel?

Senator DOWNEY. Yes.

Mr. COLLYER. There may be a bottleneck for the country, but we have had a group of chemists on this work for 6 years.

Senator DOWNEY. That is, you yourselves are in contact with personnel in your group who could—

Mr. COLLYER (interposing). I mean a group within our company, a group of our own research people.

Senator DOWNEY (continuing). Who could handle productive units of the 36,000-ton production?

Mr. COLLYER. Yes. And in an emergency, of course, we would have to go beyond that.

I mentioned 100 tons a day, or 36,000 tons a year, as being a real commercial unit. Naturally, if we had another year's experience with our 6 tons a day of material of that type, we might be able a year from now to do the 100 tons a little cheaper in the way of plant and equipment and process, but if we were called on tomorrow we are confident that within a year we would do a creditable job on 100 tons a day, or 36,000 tons a year.

Senator DOWNEY. But of course, you could have no assurance at this time that that product would be suitable for the carcass of tires?

Mr. COLLYER. I would not want to state that definitely.

Senator DOWNEY. Looking forward to the time when the rubber industry might generally be developed to a much greater extent, say, to mass production up in the hundreds of thousands of tons, could you hazard an opinion as to what price the product might be produced for, with a profit to the manufacturer, of course?

Mr. COLLYER. I do not like to do any hazarding, but I hope it will not be used or made public.

Senator DOWNEY. Would you rather have this off the record?

Mr. COLLYER. Yes.

(Discussion off the record.)

Senator MINTON. What do you pay now for crude?

Mr. COLLYER. Yesterday the market was 21.80. The manufactured cost is not over 25 cents a pound.

Senator MINTON. I just wanted to know about what the market price on crude is now.

Mr. COLLYER. About 21 to 22 cents spot. Last year the average was, I think, very close to 15 cents, and I think I mentioned before you came into the room that for the last 15 years the price of crude rubber has fluctuated from 5 cents a pound to \$1.25 a pound.

Senator DOWNEY. Mr. Collyer, if the Government desired to force, as rapidly as possible, the development of the synthetic manufacture of rubber, would you be willing to express an opinion to the committee as to what method should be suggested by the Government as most helpful to the industry in the way of subsidies or agreements to take the product at cost plus, or a certain price—something of that kind?

Mr. COLLYER. No; frankly, I have not thought of it that way. We have been providing for our own normal needs and have been attempting to sell some Ameripol tires at a higher price. We are getting additional experience and getting into a little larger scale production, so if we are ever called on in an emergency we will be that much further ahead.

Senator DOWNEY. Mr. Collyer—I am just thinking out loud now—if the Government of the United States, for instance, would agree to buy a definite amount of your product over a period of, say, 10 years, at a certain price, would you then feel that you were justified in going ahead on a large scale, and would you have the finances to do it on a large scale, say, up into mass production?

Mr. COLLYER. I think I can speak definitely for our company in saying that we could do it; and as to finances, frankly, I am doubtful—well, in fact, on a large scale such as the one I mentioned, we have not the finances to do it.

Senator DOWNEY. That is, that should be supplied by the Government?

Mr. COLLYER. Yes, sir.

Senator THOMAS of Utah. How wasteful is the natural-gas process for tires?

Mr. COLLYER. Mr. Farnish and Mr. Howard will speak later for the petroleum industry. We have come prepared to answer those questions later, but possibly you would like to talk to them first.

Senator THOMAS of Utah. I was just wondering about the thing from the broad economic standpoint, rather than from the industrial economic standpoint.

Mr. COLLYER. Roughly, our investigations have led us to believe that on a large scale an economic operation would result.

Senator THOMAS of Utah. And that it would not be overly wasteful?

Mr. COLLYER. Yes, sir; I believe it would not be.

Senator THOMAS of Utah. Have you been able to make it from anything but natural gas?

Mr. COLLYER. Yes; petroleum.

Senator HILL. We have a plentiful supply in this country of the product from which you make this rubber, have we? Here in America the product that you use—we have a plentiful supply?

Mr. COLLYER. Yes; I think that our country is very, very fortunate in that respect, compared to any other country in the world.

Senator HILL. In other words, the rubber that you produce and would produce would be what we call a simon-pure American product? You are not dependent on any other country for anything that you would need or would use to turn out rubber?

Mr. COLLYER. No; as the name of our material indicates, "Ameripol." In introducing our material we linked it with "Liberty rubber," signifying that it would be all-American.

Senator THOMAS of Utah. Is it processed about the same as the German?

Mr. COLLYER. They start from a different raw material, not having petroleum and natural gas. At a certain stage it becomes the same.

Senator DOWNEY. They have a much more difficult process than we have?

Mr. COLLYER. Yes; and a much more costly process. And that applies to Russia also, of course.

Senator DOWNEY. In going into large, mass production of synthetic rubber, would there be any bottleneck in power?

Mr. COLLYER. You are speaking now of electric power?

Senator DOWNEY. Yes.

Mr. COLLYER. I should not think so; no.

Senator DOWNEY. Where would you find your raw material? In what section of the country? Where would it be produced?

Mr. COLLYER. Well, naturally, in the petroleum sections that we have contacted.

Senator DOWNEY. Would your factories be the same?

Mr. COLLYER. You are speaking of making the material itself?

Senator DOWNEY. Yes.

Mr. COLLYER. We have made a very careful study of that, and it would have to be made there because transportation cost becomes one of the vital elements of cost. Today our tire industry is rather

scattered. We have some in the South and some in the West, and one thing we can say with assurance today—that it is less costly to send the raw materials in tank cars than it is to, say, make the complete synthetic rubber up on the spot and then ship it as we do sheet rubber today, in box cars; and if our estimates are right, that 100 tons a day is right, it is possible that if there were more than one plant of that type they would be scattered in different locations.

Senator DOWNEY. That is, you would consider a 36,000-ton plant as an economic unit?

Mr. COLLYER. Yes.

Senator DOWNEY. But if you had more than one 36,000-ton plant they might be scattered?

Mr. COLLYER. Yes.

Senator DOWNEY. I do not want to embarrass you by asking for opinions on matters that are difficult for you to pass on, Mr. Collyer, but suppose some extraordinary emergency would arise, do you think it would be possible for your company, given finances and subsidies by the Government, to reach as much as 100,000 tons of synthetic rubber in a year, considering all your bottlenecks of power and material and chemists and machinery, and so on?

Mr. COLLYER. Well, frankly, if 100,000 tons were the ultimate goal, although we, of course, would undertake it, I think the more practical way would be not to have just one company doing this but to have other countries, and that would insure competition, and I think in development that is the spice of life.

Senator DOWNEY. Maybe we would want 300,000 tons. As you yourself pointed out, Mr. Collyer, the industry now uses 700,000 tons of crude and reclaimed. May I ask you this question: Is your product subject to being reclaimed like natural rubber?

Mr. COLLYER. We have taken the reclaiming of synthetic rubber into our research program, and we are hopeful that that is going to be possible, but we cannot say that it is today.

Senator DOWNEY. But your present product is not subject to being reclaimed?

Mr. COLLYER. We have not an established process for that; no, sir.

Senator MINTON. Mr. Collyer, how much rubber is used in the country today, roughly?

Mr. COLLYER. Last year 592,000—just under 600,000 tons. Then I mentioned that, in addition to that, there is 170,000 tons of what we call "reclaimed rubber," which is taking old tires and vulcanizing and recovering them.

Senator MINTON. So there is well over 700,000 tons?

Mr. COLLYER. Seven hundred and seventy thousand tons. Then I think it might interest you to know that in an emergency the consumption of reclaimed, I am sure, would immediately be increased. Back in 1925, when the price of crude rubber was \$1.25, the consumption of reclaimed was 50 percent of crude; today it is running about a third. In other words, the higher the price of crude, the more economical it is to use an additional quantity of reclaimed.

Senator MINTON. When did you say that was?

Mr. COLLYER. In 1925. That was during the previous restriction scheme—the Stephenson scheme. Today, or last year, I mentioned that 170,000 tons of reclaimed was used, and on a 7-day week our

country has a capacity today of 300,000. So I think that in an emergency we would use not 600,000 tons of crude a year but 500,000 and 270,000 tons of reclaimed rubber.

Senator DOWNEY. But, Mr. Collyer, after you have once reclaimed it, you then cannot use that secondary article with the same degree of efficiency in reclaiming it the second time?

Mr. COLLYER. I would like to have Mr. Schade answer that. Mr. Schade is our director of research.

Mr. SCHADE. You cannot reclaim it over and over again. Each time you use reclaimed rubber you must use 70 percent of natural rubber with it, so that the quality is not dropped. The second time you use it you have 70 percent of fresh rubber and only 30 percent of reclaimed rubber.

Senator DOWNEY. Mr. Schade, the point I want to make is this: Your reclaimed rubber is all dependent on a base of crude rubber, and if that were cut off, your reclaimed would soon drop with it?

Mr. COLLYER. I think I might answer that. We could make a reclaimed tire today that might run, say, one-fifth the distance of the tire we make of natural rubber today. Then what you would like to know is if we made a tire of that type, and then reclaimed that rubber and used it again? It would deteriorate very fast.

Senator DOWNEY. In other words, it all goes back to the source of crude rubber supply. I think that is all I want to ask Mr. Collyer.

Senator HILL. I would like to ask a few questions. As to this 500,000 tons of fresh or crude rubber that we need in case of emergency, of course, we might even need more, depending on just how great that emergency was. Unfortunately, I got in just a little bit late this morning, but as I understand it, practically all of this 500,000 tons today we import from some foreign country?

Mr. COLLYER. Yes, sir.

Senator HILL. And if we got into an emergency we might have this import entirely cut off. What could the Government do today? What would you have the Government do today? You are a citizen, just as we are; you are interested in this thing as we are; what would you have the Government do today to free ourselves from this dependence on imports from foreign countries?

Mr. COLLYER. That is not an easy question to answer, and I might just develop a train of thought. I mentioned that perhaps the first practical move would be to increase reclaimed rubber, and that would automatically decrease crude, and I mentioned 500,000 tons of crude and 270,000 tons of natural rubber. Take our rubber stocks as they exist today, we have about 3 months' supply in this country, exclusive of the barter. In addition to that 3 months' supply, we have another 2 months' supply of rubber on ship coming to us from the East, and I think it is fair to include that, because I doubt whether that would all be lost. That would be 5 months, or 250,000 tons. Then the barter rubber, which is Government rubber, is 87,000 tons. That would be 337,000 tons, and on the emergency basis, consuming 40,000 tons a month, that would be about 8 months' supply.

Now, the meeting that I am going to later today is to consider ways and means for increasing our stocks in this country, and, of course, that should be done, if possible, and I think it is possible. Then in a real emergency I think that through legislation or cooperation we should limit the speed of vehicles. Treads were out much

faster at high speeds, and vehicles running at 40 miles an hour instead of 60 miles an hour would make a great difference. Could you tell us what that ratio is, Mr. Schade?

Mr. SCHADE. The curve goes up very sharply as the speed increases.

Mr. COLLYER. So reducing the speed would reduce the consumption of rubber. Then there would be the possibility of diverting certain road traffic to rail, and we might have to limit that in certain ways. But, assuming that we do increase our stocks of rubber here, it might give us 10 or 12 months' supply of rubber. Anyway, we are trying to do something but that something may take a very long time. We must keep actively on with our research work. Germany really worked on this problem ever since the last war, and I think she has been making synthetic rubber in increasing quantities for the last 6 years.

Senator HILL. Do you think much of the rubber she is using today is synthetic?

Mr. COLLYER. Well, I should judge that when war broke out she was using—well, close to 40 percent, anyway, and I know they had plans for increasing production quite rapidly.

Senator HILL. Did you give the figure as to how much synthetic rubber we use in a year?

Mr. COLLYER. Yes; 1,700 tons a year. And that is being used for special purposes, where you have a material with properties superior to natural rubber.

Senator HILL. I do not want to press it, but I do not think you have quite answered my question. Maybe you are not in a position to answer it; maybe you want to think about it more, but my question is: What, if anything, would you have the Government do to relieve us of this dependence on imports from foreign countries? You say that by cutting here and cutting there and conserving here and conserving there we might have 10 months' supply. Of course, that is just temporary.

Mr. COLLYER. I think Senator Downey suggested the answer to that question when he asked me whether our company would be interested in producing synthetic rubber at a price that would pay the full cost of production.

Senator MINTON. In other words, you think that the assistance of the Government in financing, as you say, and taking the supply, might bring the production up?

Mr. COLLYER. Yes, sir; as I mentioned, synthetic rubber today really cannot compete in price with natural rubber. That is the thing in a nutshell—at least, that is the experience we have had.

Senator GURNEY. Is it costing you much more than 25 cents a pound?

Mr. COLLYER. It is costing us about 60 cents now in small quantities, but we have plans now for selling some of these tires, and we think that 100 or 200 tires a day will increase our production enough to materially reduce that cost. But even so, if crude rubber was to drop from 22 cents to 6 cents a pound again, that would throw our calculations out. You see, rubber is a very large proportion of the cost of making the tire.

Senator DOWNEY. Senator Hill, did you hear Mr. Collyer's statement that he believed his company might get into production of

36,000 tons in a year, and then the cost would come down to 25 cents a pound?

Senator HILL. Yes; I heard that. About the 36,000 tons, do you suppose that if the Government were to purchase all the rubber that it is purchasing now in the way of tires for automobiles—we have many trucks and other vehicles, and there might be use for this synthetic rubber in some other ways—would that be anything like enough business to take 36,000 tons, do you suppose?

Mr. COLLYER. Well, it depends on the future program. In England today more crude rubber is being consumed than ever before in the history of the country, and I believe that very little rubber is going into private use today. So, with this huge armament program, they will use a lot of rubber.

Senator GURNEY. You mean that if you had a Government contract for these rubber tires could you afford to get into mass production of 36,000 tons, and would that take the output of your plant?

Mr. COLLYER. Well, we have only provided a plant for our own normal use, but if we had the larger plant, then, of course, it would depend on the price, because 25 cents a pound could not compete with 22 cents.

Senator GURNEY. I know, but supposing the Government was willing to pay you 25 cents a pound and take all your output?

Mr. COLLYER. That might be a way of subsidizing the manufacture of synthetic rubber. That is a possibility.

Senator GURNEY. That would get your plant into production quite rapidly, would it not?

Mr. COLLYER. Well, I mentioned that we thought it would take a year. Then we would be going full speed ahead.

Senator HILL. That would be strictly a commercial proposition. You would not have any Government operation, no Government in business. It would be just a contractual business relation between you and the Government, where the Government would buy this rubber from you.

Mr. COLLYER. But I did say, in answer to one of your questions, that we do not have the finances. These are very round figures that I will talk on as to what it might cost for plant and equipment, and I think I would prefer to have this off the record. * * *

Senator GURNEY. Are there any byproducts from the production of this synthetic rubber?

Mr. COLLYER. Through all the stages there are byproducts; yes.

Senator GURNEY. Would that be fuel or what would the byproducts be? Different chemicals?

Mr. COLLYER. Are you in a position to state that, Mr. Schade?

Mr. SCHADE. I understand that in using natural gas, the gas is still usable for making carbon black. And with petroleum I understand they have to modify their refining process, but they do get some byproducts out of it.

Senator GURNEY. And the sale of those products would undoubtedly reduce the cost of producing the synthetic rubber?

Mr. COLLYER. And we have taken that into account in our preliminary estimates, but we do not know that we have reached the final amount. And we do not know that we have reached the final amount in what might be done in making our Ameripol greatly superior to natural rubber. In other words, if for the tread you could develop a

material that had double the abrasive wear of natural rubber, that would be almost as valuable as having material that costs half as much.

Senator GURNEY. One more question on the byproducts. Is there a market for these byproducts?

Mr. COLLYER. For carbon black; yes.

Senator GURNEY. There is an existing market for any surplus byproducts?

Mr. COLLYER. Yes.

Senator HOLMAN. May I make an observation there? Senator Downey mentioned the element of power. The Federal Government has made large appropriations for the development of power in the West, at Bonneville and Grand Coulee—I am a Senator from Oregon. I am somewhat concerned about the concentration of all these industries on which the defense of our Nation depends being largely confined to the northeast section of the entire United States, and I think it would be much safer for our national defense if through the South, the Central States, and the West, these various industries could be located economically and without impairing efficiency. Have you any comments as to the possibility or practicability of locating any extensions, we will say, of this synthetic rubber business near those power developments in the West?

Mr. COLLYER. Chairman Sheppard, have I your permission to ask Mr. Graham, our vice president in charge of manufacturing, to speak on that?

The CHAIRMAN. Very well.

Mr. GRAHAM. Our problem, in terms of large production of power, as we know it, is not one that gives us any great concern, but I think it would require rather complete study of the various economic factors which must be measured before we reach a conclusion that one area is preferable to another. We do feel that an abundance of cold water is essential. When I say "cold water," I am talking about water 50° or 55°. But so far as power in itself is concerned, it is not a large factor.

Mr. COLLYER. Considering the location of the rubber manufacturing plants today, do you feel that you should necessarily have more than one central plant?

Mr. GRAHAM. I think it would be advisable, if there should be more than one plant, for us to have it distributed so that the supply of Ameripol in our various plants would be within reasonable proximity of those plants. And we have plants on the east coast, on the west coast, and in the Middle West now.

Senator CHANDLER. Mr. Collyer, I understood you to say, I believe, that there were 750,000 tons of rubber used in the country last year, 170,000 tons of which was reclaimed rubber.

Mr. COLLYER. I might just give those figures again. There was just under 600,000 tons of crude, and in addition to that, 170,000 tons of reclaimed, making 770,000 tons total.

Senator CHANDLER. That was my understanding. Now, if suddenly our supply of rubber were cut off from foreign countries and we were faced with only a 10 months' supply, as it appears here, your plant could make 36,000 tons? Is that the maximum? Is that the best you could do in your plant?

Mr. COLLYER. No; the way we arrive at that figure, we feel that that is a commercial unit and—

Senator CHANDLER (interposing). What is the best you could do now if we were suddenly cut off from our foreign supply? What is the best your plant could do, assuming that the Government gave you its full support and told you to get your plant ready to make this rubber? For example, Henry Ford says he can make a thousand planes a day, a thousand motors a day. Somebody asked me if he could do it, and I said he could do it if he said so. I believe that if he said he could do it, he could do it. I believe that if you say you can do this job, I believe you can do it, but I want to know what you think you can do, in your best judgment, in an emergency like that.

Senator HOLMAN. You mean eliminating the financial picture, and assuming that that is a practical matter?

Senator CHANDLER. Assuming that the finances are taken care of and you are told to get busy and make rubber to meet an emergency.

Mr. COLLYER. Well, frankly, I do not think that would be the way to do it, to tell me to do it, but if you—

Senator CHANDLER (interposing). No; I am just asking you to tell me certainly what you could do.

Mr. COLLYER. Well, I am assuming that we are shut off from rubber, that the rubber plantations may be destroyed and we have to sink or swim. Then I think we would need to use all of our resources to the best advantage. We would have to organize for the job, and I may be overstating the case, I do not know, but I think in that kind of an emergency, in 3 years—and, of course, reclaimed development would have to go along with that—that we could be in a position to carry on. I do not say that the product we make would equal that of today, but it would be a necessity and it would have to be done.

Senator CHANDLER. How many plants similar to yours could be used?

Mr. COLLYER. I think, for that type of operation, that a very careful study should be made, and that might prove that instead of having 100 tons today it might be 200, and we do not want to have too many of these things scattered about, because there are some savings when you get into these large-scale productions, but when he mentioned 100 tons a day I was thinking of possibly a total production, if it were needed, of, say, 100,000 tons a year. There might be three plants of that type.

Senator CHANDLER. There might be three plants of that type in America that could be used?

Mr. COLLYER. No; it would take us a year to do one plant.

Senator CHANDLER. Assuming we have a 10 months' supply of rubber here.

Mr. COLLYER. It would take a year to get the plant into operation, and then of course, simultaneously almost with that, the manufacturers would have to start very active development work on the use of the material, because that is a very important part of the problem.

Senator CHANDLER. Is it any advantage to you, Mr. Collyer, to have your plants located where the oil and natural gas is, where it actually comes out of the ground?

Mr. COLLYER. Well, the transportation cost would determine that.

Senator CHANDLER. We have got a lot of oil and gas in Kentucky, and we have been discussing here the prospect of moving industries,

important industries, off the eastern seacoast where they might be assailable—I mean right now, if bombers should come here from some place—move them back behind the mountains where they would not be so handy or so close to danger. Of course, we have got in the country back there natural gas right there in the ground, and we have got oil right there.

Senator DOWNEY. And you have got 20 billions of gold there to attract the parachutists. I do not think Kentucky would be a good place to locate.

Senator CHANDLER. We have got good rifles out there and men that can use them, too. We are not worried about the parachutists.

Mr. COLLYER. Mr. Chairman, I am wondering if I might ask to have that statement that this could be done in 3 years taken out of the record, because the condition you cited was an extreme emergency, and I tried to make some kind of an answer.

Senator CHANDLER. We must face a situation here where we might be in an extreme emergency, and I would like to know, if you are able to tell us, what other plants, in addition to yours, would be available, and how much we could rely on if we were suddenly bereft of our imports from the West Indies or some place else—the East Indies.

Senator DOWNEY. I might tell the Senator from Kentucky that we have two other very distinguished groups here, one from the Du Pont Co. and one from Standard Oil, who can speak on that line. I would like to make this suggestion to Mr. Collyer, that if you would like to correct your testimony before it is printed, that can be done.

The CHAIRMAN. Yes; we will hold your testimony and submit it to you, and let you correct it as you desire.

Mr. COLLYER. I appreciate that very much. May I just ask Mr. Graham, who has never thought of this extreme emergency, what his opinion would be—off the record? * * * *

Senator HOLMAN. It would not be practical to construct and organize three plants simultaneously, would it?

Mr. GRAHAM. By one company?

Senator HOLMAN. Yes.

Mr. GRAHAM. I do not think that would be a wise plan.

Senator DOWNEY. I might say for the benefit of Senator Hill that the War Department has informed me that if we should be cut off from rubber now but could secure what is now afloat, the 100,000 tons that Mr. Collyer spoke of, if we should go on a war-emergency basis we might get along for 10 to 13 months. That is the statement of the War Department, which is about your statement.

Mr. COLLYER. Yes. I thank you very much, gentlemen.

Senator HILL. Mr. Chairman, I had the privilege of serving on the House Military Affairs Committee with Congressman Harter, of Ohio, representing the Akron district. He has talked rubber to me so much and so often that when I heard that Senator Downey was going to have this hearing this morning, I invited Mr. Harter to come over, and he is with us now, and I know all the members of the committee are delighted to have him here.

The CHAIRMAN. Yes, indeed; we are very glad to have Congressman Harter with us.

Mr. COLLYER. I want to reiterate that this problem is not a simple one. There is a lot of difficulty and hard work to be done. It is not simply a question of turning the crank and out comes synthetic rubber plants already going.

Senator DOWNEY. Now, I would like to have you hear Mr. Farrish, of the Standard Oil Co. of New Jersey.

**STATEMENTS OF W. S. FARRISH, AND FRANK A. HOWARD,
REPRESENTING THE STANDARD OIL CO. OF NEW JERSEY**

Mr. FARRISH. I would like to suggest, Mr. Chairman, that Mr. Howard and myself probably will both testify, because Mr. Howard is familiar with the technical phases of this chemistry and I am not. So he will probably answer a good many of your questions.

Senator DOWNEY. Suppose you gentlemen regard us as your seminar. You have heard the general line of questioning. You represent the Standard Oil Co. of New Jersey?

Mr. FARRISH. Yes.

The CHAIRMAN. We would like to have your views on this question of the possibility of using synthetic rubber in an emergency and furnishing it in quantity.

Senator DOWNEY. Will you first tell us about your present product and what you are doing with it, Mr. Farrish?

Mr. FARRISH. Well, our interest in synthetic rubber started back some years ago, through the acquisition from the German chemical industry of their patents in this country to manufacture Buna rubber, as they call it, and that, briefly, is the rubber that is made here. We make it here as butadiene. The Germans made it from coal and lime, making a gas which they converted back into the raw material from which they made their Buna rubber. That rubber has been used in this country in a small way. It has been a specialty product for several years.

About a year and a half ago, I think it was, we got the German people to send over some Buna rubber to be experimented with here in making tires, and the various rubber companies experimented with that rubber, some of them reporting success and others indifferent success. That experimenting, I believe, was primarily, however, in treads rather than in the whole carcass. Am I correct in that?

Mr. HOWARD. Yes.

Mr. FARRISH. The latest information we have is that the Germans are making their tires today, using 50 to 70 percent of synthetic rubber and the balance natural rubber, the natural rubber going primarily into the building of the carcass.

The CHAIRMAN. Where do they get their natural rubber?

Mr. FARRISH. They bought it from the same people that we buy it from, from the rubber trust, Holland and English controlled rubber.

Senator DOWNEY. They stored it up in advance?

Mr. FARRISH. They stored it up in advance; yes.

Senator GURNEY. Let me ask a question there. How long will rubber remain good, crude rubber, in storage in this country? An indefinite time?

Mr. FARRISH. I am sorry, Senator, but I cannot answer that.

Mr. HOWARD. At least 3 years.

Mr. FARRISH. In connection with developing the manufacture of Buna in this country we, through our laboratory work, developed a rubber substitute, synthetic rubber, through another process that we call butyl rubber. That rubber we have developed ourselves in our own laboratories and it has a different origin, a different process, and different characteristics from the Buna rubber, although all synthetic rubber is made from—can be made, rather—from petroleum hydrocarbons that we group under chemistry reactions that give us the material that we call synthetic rubber.

This particular product that we have developed we think is perhaps adaptable to tire manufacture just as well as the Buna rubber, the German rubber, but we have not carried on experiments and the tire people have not carried on experiments in trial to prove that. At the present time we have furnished to two companies, the Firestone Co., and the United States Rubber Co., samples of this rubber, sufficient quantities of this rubber, and they are carrying on in their laboratories now experiments to determine the practical uses to which it can be put. We know through our own experience that it has many uses that are perhaps superior to natural rubber, but just how far it will go as a real substitute for natural rubber we do not know. They tell us that in 90 days they will be able to answer the question as to how good it is and how far it will go and how complete it will answer the needs of natural rubber.

The source of all synthetic rubber is petroleum, and to state something that has already been stated here, we have all the supplies necessary in this country to manufacture any quantity of it. We are not dependent on anybody else to make synthetic rubber, and coming from petroleum, with adequate supplies of raw material, the volume of production that can be had is simply a question of money and time, building a plant, developing, improving the technique and practicability of the product that is produced. So that in an emergency, if we are shut off from raw material supplies, if the industry jointly—I mean the petroleum industry as well the rubber industry—were put to it and told to go ahead with adequate financing to do the job, in a reasonable period of time we think we can make all the synthetic rubber that we can use in this country. There again, the total use and efficiency of the rubber is something that has got to be proven by experience. I think it took the Germans 10 years, did it not, to build a good automobile tire from synthetic rubber?

Mr. HOWARD. Yes.

Mr. FARRISH. And still they are not using 100 percent synthetic rubber in their tires.

So this question of being absolutely independent of natural rubber is quite a serious question. It is a question of chemistry and experiment to which no one, in our judgment, has the answer today. We do not have the answer, and we have been working with synthetic rubbers for some years.

Senator DOWNEY. You have a factory projected in Louisiana but not yet built? Is that correct?

Mr. FARRISH. We are building a plant in Louisiana at which, in addition to other things, we will make about 5 tons a day of butyl rubber, which will be consumed, we think, by the rubber industry in the manufacture of specialty products, not tires.

Senator DOWNEY. Now, if you wanted to get into the enlarged production of butyl rubber as rapidly as possible, what amount of production do you think you could reach of your present products within a year, if money were not any problem to you? If you were just trying to get as much product as possible?

Mr. FARRISH. Let me ask this first. We do not know yet that Buna rubber or Butadiene would be the best answer to the problem. If it is, butyl rubber, the one we have developed, we think can be made cheaper and can be made easier and in greater quantity at less investment and so on, and made simpler. If it will answer the question, our objective would then be to make that rubber, because we could make it much cheaper and make it in greater quantity.

Mr. Howard and I were debating this question last night, anticipating perhaps that you would ask that question. We do not think there is any doubt but what the industry is, as I told you, the petroleum industry, cooperating fully with the rubber industry, could develop in a reasonable time all the synthetic rubber that could be used, whether it is butyl or Buna, either one or both.

Now, the product that Mr. Collyer just told you about, which belongs to the Buna range, I would guess, from the fact he said the material was Butediene rubber. That would put it in the Buna type of rubber. The quantity can be produced.

As to the time element, we have only a rough guess on that. I would say from 2 to 3 years, at which time the industry could be making 1,000 to 1,500 tons a day of synthetic rubber.

Senator THOMAS of Utah. If you used all of your synthetic rubber for specialties and insulation and things of that kind, would it be economically advisable to divert the synthetic rubber into the fields where it can be used to best advantage, and then keep your natural rubber for tires?

Mr. FARRISH. There again, Senator, if we are short of natural rubber it would be advantageous to use synthetic rubber. These gentlemen have just told you that the percentage of synthetic rubber that goes into tires is 70 percent of the total. We have got to have something to make tires out of.

Senator THOMAS of Utah. But beyond 70 percent we could depend entirely on synthetic rubber?

Mr. FARRISH. I think so. Based on the German experience, it is possible that this country could get along with 30 percent natural rubber for its entire needs. Is that right?

Mr. HOWARD. That is correct. That is a maximum. I was told a few weeks ago that these Germans manufacture tires as high as 90 percent Buna rubber.

Senator DOWNEY. You say Germany manufactures tires as high as 90 percent Buna rubber.

Mr. HOWARD. Yes; I am told that a 90-percent Buna tire is now practical and in use.

Senator DOWNEY. Would you have plenty of chemists to work as rapidly as you might like to in the perfection of your process?

Mr. HOWARD. Well, one question in our minds is how many other departments of national defense would have to go to the same shop to teach the manufacture of aviation gasoline, the manufacture of toluol, and a few other very pressing problems.

Senator THOMAS of Utah. Then there is no scarcity of chemists, and if you had 3 years to get ready you could divert the instruction in the colleges to turning out more chemists than they are turning out now, could you not?

Mr. HOWARD. What it would mean is that a great many people now working will have to work 10 hours a day, 7 days a week.

Senator DOWNEY. I have understood from other sources that there was rather a shortage of chemists to handle very big chemistry operations in the United States at the present time. I have no doubt that in 3 years we could do it.

Senator HOLMAN. That is the hump, the 3 years.

Mr. HOWARD. Yes; it is during that 3 years that the trouble would arise.

Senator DOWNEY. The figure that Mr. Collier gave indicated that his company could erect a plant of 36,000 tons capacity for \$10,000,000 which would be about \$300 for production of each ton. Would your experience indicate about the same thing?

Mr. FARRISH. We made some rough calculations, Senator, and they result briefly in this: That, depending on the type of material that is made, the 300-ton-a-day plant of one type would cost about \$25,000,000, and of another type about \$50,000,000. That would be the range.

Senator DOWNEY. That would be a 100,000-ton plant a year?

Mr. FARRISH. Three hundred tons a day; yes, 100,000 tons a year.

Senator DOWNEY. That is along the same general lines that Mr. Collier spoke.

Mr. FARRISH. We have estimated also that rubber manufactured from such a plant would cost, with depreciation and reasonable profit, from 20 to 30 cents a pound, depending on the type of rubber, the type of material that it was made of.

Senator DOWNEY. I do not want to interpret anybody's testimony, but you apparently are not as optimistic that within a period of a year or so we might be able to produce a rubber that would be adaptable to the character of tires as Mr. Collier seemed to be.

Mr. FARRISH. Well, that is, of course, outside of our particular efforts; we have been concerned in the manufacture of the raw material, not in the processing of it, and the question of what the tire people can do with this material in the molding and merging of the rubber into the finished tire is something that we have not dealt with, but if the Germans were able to do it, I should think we are able to do it. There again is the time element, how long it will take us to make a rubber tire out of 90 percent synthetic rubber is a question we cannot answer.

Senator DOWNEY. I think that is all the questions I have.

Senator HILL. I have a question, Mr. Chairman. I do not want to get away from synthetic rubber, because that is our problem, but just as a matter of interest, what is it that causes the East Indies to produce raw rubber and we cannot? Is it climate? Is it because of that hot climate in the East Indies?

Mr. FARRISH. I presume, sir, that is a question of climate and soil, and again cheap labor. We understand, for instance, that Firestone's cost of producing natural rubber in Liberia is much higher than the United States Rubber Co.'s cost in Malay.

Senator THOMAS of Utah. Are they doing much in Liberia?

Mr. FARRISH. They have got a tremendous investment, something on the order of \$40,000,000 there—I am not sure of the amount, but some large amount of money.

Senator THOMAS of Utah. The rubber tree is native of America, is it not, South America?

Mr. FARRISH. South America, the Amazon Valley.

Senator THOMAS of Utah. And it was transported over into Africa.

Mr. FARRISH. Mr. Ford is trying to raise rubber in the Amazon Valley.

Senator DOWNEY. But the tree is subject to disease there.

Senator HILL. Do you know how successful that has been?

Mr. FARRISH. Not so good, I would say.

Senator DOWNEY. They are only producing about ten or fifteen thousand tons of rubber in South America, and that is from wild trees, I think. The domesticated trees are very subject to plant diseases.

Mr. FARRISH. There is one phase of this, gentlemen, which I would like to call to your attention, if I may speak out. There are two ways that the manufacture of synthetic rubber might be encouraged in this country. One, of course, in emergency is direct subsidy from the Government—as a matter of fact, orders from the Government to go ahead and make it. The other is a system that has been resorted to by a number of European countries, foreign countries, to encourage the use of domestic products, and that is a license and import system which would require the purchase of a certain quantity of an indigenous or synthetic product in proportion to the importation, an import license of the natural origin commodity in commerce. That is used, and in the normal course of things if you had no emergency to meet and wanted to encourage the production of synthetic rubber in this country, that would be a natural way to do it. In other words, require all users of rubber to buy a certain percentage of indigenous rubber to whatever import license they had. That would leave the field of production wide open as to competition, as to who would get the sale of that indigenous product, and in that way you would encourage the production of a domestic, synthetic rubber. Whether that is worth anything in this emergency that you are facing or not, I do not know, but certainly it is worthy of consideration if you go into some emergency production of synthetic rubber. We have got to live with this question a long time, once we go into it, and it is of no consequence—I do not suppose you gentlemen like to waste money any more than we do in industry, and to put \$300,000,000 or some such amount of money into synthetic rubber plants and then have the emergency pass and natural rubber drop down to 10 cents or lower, and those plants sit up there and rust, would not be a very practical or intelligent use of the money or of the plant, and if you go into it, I suggest that that is one thing that might well be considered in your plans, that is, the permanent use of these plants, whatever is built. That is the easiest way and the simplest way to do it, and that would leave the production, then, of synthetic rubber in the competitive field where it could go ahead.

One other phase of it that I would like to suggest to you for your consideration is that if we have to go into the emergency production in this country of large quantities of synthetic rubber, a good many things are going to have to be done that cannot be done legally today. In other words, the oil industry and the rubber industry are going to have to be put in the same room and they are going to have to

deal with these questions and deal with them as one, and that we are not permitted to do under our laws today. There is some general enabling legislation necessary to do that job properly, because, after all, if we have to go into a maximum production of synthetic rubber, it has got to be a cooperative job to be a job well done. Of course, it can be done, but it will be done at tremendous expense and lost motion if it is not done in that way. I just offer that suggestion.

Senator DOWNEY. I think that is a very intelligent observation.

Senator HILL. Mr. Chairman, in line with what Mr. Farrish has just said, I had already written down here the word "legislation," having this thought in mind: We passed a bill the other day which was captioned "To further protect national defense," in which we took off a great many limitations with reference to competitive bidding, advertising, and many things of that kind. I think, though, this committee ought to have further information from some source, perhaps the Department of Justice, and the War Department, too, as to just what legislation would be necessary, if any, to carry on some such program as has been more or less tentatively suggested here this morning, or perhaps certain Members have in mind to see where we are, because, after all is said and done, our prime responsibility, so far as this committee is concerned, is legislation, and that is where we have got to open the bottleneck, so to speak, to make sure that the laws are all right.

The CHAIRMAN. Are there any further questions?

Mr. FARRISH. May I say just one other word, Senator? In connection with that, Mr. Howard and I in discussing this question last night were trying to answer for ourselves the question you asked Mr. Collier, and I offer the suggestion only for what it may be worth, and purely tentative, but if we had this problem today, our approach to it would be that we would secure, as promptly as possible, all of the raw rubber we could get as the first step to meet an emergency situation.

Senator HILL. You mean you would store that up?

Mr. FARRISH. Buy it and store it, get hold of it. We would next encourage the reclaiming of all old rubber that could be reclaimed and gotten hold of. Then if, after a study of the situation—and a study will have to be made, a study that perhaps you gentlemen cannot undertake, but you will have to pass it on to some technical people who can do it—maybe it can be done under Mr. Stettinius—but anyway, a study and analysis will have to be made, taking those factors into consideration. Then a decision will have to be reached: Do we face an emergency where we must make and must have the maximum production of synthetic rubber? If your answer is "Yes," then how much? If the answer to that is "500 tons a day," or six or seven or eight hundred tons a day, then how are we to do that?

That same study would show, with due analysis, what each one of these producers or prospective producers of synthetic rubber can do, their cost, their source of raw material, and so on. Then the allocation may be made as to who is to do the job, what plants are to be built, and how much is this unit or that unit to produce; and to enable us to work promptly, I suggest that some enabling legislation is going to have to be enacted, because it is going to cover both financing and the most intensive cooperation between the producers of synthetic rubber and

the practical manufacturers of it, the tire people, and I would think that that would be the logical step that they might take in getting quicker to production.

Further, it is our judgment that it would probably take about 3 months' time to do the paper work in connection with it, to do this analysis, to get the plant so that whoever would have the final say and pass on it would have all the material before them to deal with. By that time, then, if the order is to go ahead, everything can move in swift motion and progress be made toward the actual building and carrying out of whatever plan is decided on.

I do not know whether that is worth anything to you or not, but that is the conclusion that we came to in discussing the matter.

Senator HOLMAN. May I propose one question? I would like to have both the question and the answer off the record, if the gentlemen care to answer it. * * *

The CHAIRMAN. Your testimony has been very helpful, gentlemen, and we thank you very much.

Senator DOWNEY. We certainly appreciate your help.

Now, I would like to have you hear Mr. Bridgewater, gentlemen. Mr. Bridgewater is the chemist for the Du Pont Co. and has had considerable experience in this business.

The CHAIRMAN. We will be glad to hear Mr. Bridgewater.

STATEMENT OF E. R. BRIDGEWATER, REPRESENTING THE E. I. du PONT DE NEMOURS & CO., WILMINGTON, DEL.

Mr. BRIDGEWATER. Mr. Chairman. I have prepared a statement, but Mr. Farrish and Mr. Collier have covered some of the ground covered by this statement, and I think it will not be necessary for me to read it in detail, but I will be glad to leave it with the committee.

The CHAIRMAN. We would like to have that in the record.

Mr. BRIDGEWATER. I will try to sketch over the points that have not been fully covered by the other witnesses.

One thing that may be the cause of some misunderstanding is this name "synthetic rubber." Strictly speaking, there is no such thing; that is, when we speak of "synthetic" camphor, "synthetic" indigo, we mean a factory-made product that is chemically the same as the natural agricultural product. Now, this term "synthetic rubber" has come to mean any product that resembles, however remotely, the natural rubber. So when we use it, we use it in that sense. It is important, I think, to bear that in mind, because if the things we call synthetic rubber were really synthetic rubber, then their substitution for the natural product would not involve the difficult problems that you have heard about here this morning. If it were the same product, we could just switch from one to the other and go merrily on our way.

One other thing about synthetic rubber. It is not new at all. Synthetic rubber has been a subject of research for 75 years. In fact, between 1908 and 1914, in Germany and England and Russia there was a great deal of work done on synthetic rubber, very liberally financed and very aggressively pursued. The only result of that, however, was the production during the last war, in Germany, of some 2,350 tons of

admittedly inferior rubber. After Versailles that was discontinued, and to the best of our knowledge there was no work done on synthetic rubber until 1925, when we took the problem up.

Senator DOWNEY. You mean the Du Pont Co.?

Mr. BRIDGEWATER. Yes; our company. Our goal is quite a different one. Previous investigators have been concerned with developing a substitute to be used in times of emergency in place of natural rubber. We recognize that we could not hope to make a synthetic product as cheaply as rubber can be grown, but we also recognize that rubber is used for many purposes for which it is not well suited, merely because there is nothing better available. Our task, then, was to create an artificial product that would be better for some of these specialized industrial uses, and hence would be able to compete with the natural rubber in the open market, even though it did cost several times as much.

In the course of our work, which in the laboratory stage extended from 1925 to 1931, we investigated principally butadiene and chemicals related to it. You have heard of butadiene from the other witnesses here this morning. In the course of that work we discovered a previously unknown chemical called "chlorbutadiene," and we discovered also the process by which we produced a product that we called "Neoprene." We built our first commercial plant for making Neoprene in 1931. We have been producing it on a commercial scale ever since. Our production has increased by more than 100 percent every year since then, with one exception: In the year 1938 the increase over 1937 was somewhat smaller, but since 1938, again our sales of this product have more than doubled in each year, and at the present time we are selling about 550,000 pounds a month, which is just about double what we were selling a year ago.

Senator DOWNEY. What is that in tons?

Mr. BRIDGEWATER. Two hundred and seventy-five tons a month. Which, of course, is—well, 275 short tons; however, crude rubber consumption is expressed in terms of long tons, so that is about 250 long tons. That, of course, is a mere trifle as compared to our national consumption of crude rubber.

Now, as to the quality of this product. Obviously, it must, for some purposes, be better than natural rubber, because we sold it in the beginning at \$1.05 a pound, and we sell it now at 75 cents a pound, and we sell it, incidentally, to about 250 American rubber manufacturers, which includes all of the important manufacturers making a general line of rubber goods and, of course, to many smaller manufacturers. It is used, obviously, only for purposes for which its special properties make it worth the cost.

The growth in the use of the product is due, in part, of course, to our policy of reducing price. As our volume increases, cost declines, due more, I think, to the very remarkable progress that the rubber industry has made in learning how to formulate it, or, to use the trade term, how to compound it to make finished products. These gentlemen are all, I think, aware of the fact that the quality of rubber products has greatly increased over the past 20 or 30 years, and the advance most familiar to the public is increased tire mileage, but that improvement has run through the entire rubber industry, and I think it is worthy of note that that is not the result of any

improvement whatever in the rubber. The rubber that was used in the 2,500-mile tire which you bought 30 years ago was fully as good as the rubber that is used today to make 25,000-mile tires. That improvement, then, is the result of the rubber industry's experience in the art of formulating, designing the rubber in the tires or hose, or whatever the product may be.

Senator HOLMAN. You say "designing." They have improved the compound used; have they not?

Mr. BRIDGEWATER. Oh, yes; they have improved all the elements. To have improved only the structural design would perhaps have been productive of little good, unless the compound had been improved also. On the other hand, improving the compound without improving design would have been relatively of little value. All elements must move forward together.

Now, I spoke of the improvement in the art of compounding Neoprene since 1931, an improvement that has been contributed to in a very large way by practically all of our important Government agencies, but I do not think the process is nearly completed. There is every reason to believe that as the years go by the industry will do with Neoprene exactly as it has done with natural rubber, through their commercial experience, having the opportunity to produce goods, to observe them in actual service, and then to correct the mistakes and produce better products.

Senator MINTON. What is Neoprene?

Mr. BRIDGEWATER. Neoprene is the name of this product we manufacture, which we sell to rubber manufacturers, to all rubber manufacturers.

The CHAIRMAN. That plant was built in 1931, I believe you said?

Mr. BRIDGEWATER. Yes.

The CHAIRMAN. What about butadiene?

Mr. BRIDGEWATER. That is another name for the same product.

Now, as to the reasons for the commercial use of this rather expensive product, I am not going to burden you with a lot of technology. You might be interested to know that one of its important properties is that it is relatively unaffected by intensive sunlight, which accounts for such uses as ceiling strips around windows on high altitude airplanes, where natural rubber would not be so satisfactory. Other properties of this material, which is really quite different from natural rubber, are that it does not support combustion. It can be burned if you apply the flame directly to it, but the fire will go out as soon as the source of heat is removed. And it is affected less by the oxygen of the air than any ordinary rubber. It is affected less by heat.

For those and other reasons Neoprene is used by rubber manufacturers in producing what we call "industrial rubber" products, that is, parts of machines which go into airplanes, automobiles, steamships, machine tools, electrical equipment—in practically all types of industrial equipment. It is also used for such domestic uses as—personal, I should say, rather than domestic—garments and shoes, gloves, hose equipment—in fact, Neoprene is used to a greater or lesser extent in the production of practically all of the types of products that were formerly made only of natural rubber.

A good deal has been said here this morning about tires. The only commercial use of Neoprene in tires is in solid tires for indus-

trial trucks. It has been used for some years experimentally in pneumatic tires for highway service. It is not used commercially for that purpose today because its cost is still too high. We anticipate that within a few years it will be used commercially in pneumatic tires to a limited extent, primarily because, on account of the fact that it is relatively unaffected by sunlight, there are good reasons for using it as a surface covering for the outer surface of a tire.

Senator DOWNEY. Mr. Bridgewater, to what extent can your product be used in the hard tires that you spoke of?

Mr. BRIDGEWATER. Oh, it could be used to the extent of 100 percent, but there is no incentive for using it except where the tires come in contact with excessive heat or with oil.

Senator DOWNEY. To what extent could hard tires be made to do the service if we could not get the other rubber?

Mr. BRIDGEWATER. To no extent at all. As you know, of course, hard tires have been legislated off the roads in most States, and very properly.

Senator DOWNEY. But you mean that even under emergency they could not do the job?

Mr. BRIDGEWATER. No; I do not think so.

Senator HOLMAN. It is not practical material?

Mr. BRIDGEWATER. No; I do not think so.

The CHAIRMAN. In other words, rubber is an absolute necessity for modern civilization?

Mr. BRIDGEWATER. Yes; I think so.

Senator DOWNEY. You mean civilization will collapse if we do not have rubber?

The CHAIRMAN. It is a necessary material. Civilization could not go on if we did not have rubber tires.

Mr. BRIDGEWATER. You mean, Senator, either rubber or some of these synthetic materials.

The CHAIRMAN. Certainly.

Senator DOWNEY. How about going on caterpillar steel treads?

The CHAIRMAN. They would break down for lack of speed. You could not have the food conveyed into the cities without rubber tires.

Senator HOLMAN. I am very much interested in your point, and I am a little confused now. Let us imagine that our supplies of natural rubber are cut off. Can we not produce a substitute material with which we could get along, eliminating the cost element?

Mr. BRIDGEWATER. Yes; you have heard this morning about a number of substitutes.

Senator HOLMAN. But what you are talking about now is not one of those?

Mr. BRIDGEWATER. Yes; to be sure.

Senator DOWNEY. Mr. Bridgewater, you are going to come to that later?

Mr. BRIDGEWATER. Yes.

Senator DOWNEY. He will cover that point a little later, Senator, I think.

Mr. BRIDGEWATER. As to what could be done in case of emergency.

The CHAIRMAN. Suppose our supply of natural rubber was cut off, how long would our present physical, material civilization go on at the rate it is going now?

Mr. BRIDGEWATER. Well, Senator, I do not know, but I think you use very alarming words.

The CHAIRMAN. We are in an alarming situation. If you cut off rubber and manganese, the present material civilization in the United States could not last a year, according to my notion.

Mr. BRIDGEWATER. Well, it would certainly be necessary for us to, as Mr. Farrish, I think, suggested, to use the maximum effort to substitute other means of transportation for rubber.

The CHAIRMAN. But could we do it in sufficient time to function?

Mr. BRIDGEWATER. I think so. That is, I think that even with the limited supply of natural rubber that is available to us, which I hope will be augmented, and I am sure steps are being taken to do that.

Senator DOWNEY. I think every possible step is being taken.

The CHAIRMAN. We have a 5 months' supply now. That is all. And 2 months of that supply is on the ocean.

Mr. BRIDGEWATER. Well, I would not know, Senator, to what extent that could be stretched by eliminating unnecessary uses and requiring me to walk to work instead of riding.

The CHAIRMAN. That is the point I am making. Hardship after hardship would have to be encountered, and we could not have the present comforts and conveniences and gadgets if we lost our supply of natural rubber.

Mr. BRIDGEWATER. Quite right—at least, not until production of these synthetic products was established.

The CHAIRMAN. That would take 2 or 3 years to get it on an adequate basis.

Mr. BRIDGEWATER. I think so.

The CHAIRMAN. I do not think the country realizes the actual importance of things like rubber and manganese and tin, of which we do not produce anything like an adequate supply. It would be like taking food away from us to take away those three things in our material civilization.

Senator HOLMAN. That is the object of this meeting, is it not, trying to anticipate that direful situation and what we are going to do about it?

The CHAIRMAN. I just wanted to see if this technical man agreed with me as a layman—I am just a layman—as to the extent of the necessity for these things.

Mr. BRIDGEWATER. Of course, Senator, a great deal depends on the 3 years. A great deal could be accomplished in 3 years. These rubber manufacturers that I have spoken of, all American rubber manufacturers, have had a great deal of commercial experience with the use of this particular product that I am talking about. It would be a relatively simple problem for them to multiply their use many times, instead of merely doubling it in a year, which is our normal course.

The CHAIRMAN. If we had a sufficient supply of this product which you are talking about now, would it take the place of rubber?

Mr. BRIDGEWATER. Senator, I think that, given time for some development of the art of using it for the purposes for which it is not now used commercially—and that applies particularly to pneumatic tires, and particularly also to these carcass stocks of pneumatic tires you have heard about this morning—I think that the rubber industry probably could find the technique of using it to produce satisfactory tires—I say it probably could.

The CHAIRMAN. I understand it is not a practical thing.

Mr. BRIDGEWATER. It has not been proven. We do not know anything about anything until we have done it.

The CHAIRMAN. And so there you are.

Mr. BRIDGEWATER. And the answer to all of these questions about the use of this or that synthetic product in tires is: Is it actually being done on a commercial scale today, day in and day out? If it is not—and it is not—neither with Neoprene or any of these others—then we do not know that it can be done.

The CHAIRMAN. That is it. That is what I wanted to bring out.

Senator DOWNEY. Let me ask you two or three specific questions: To what extent do you think, under forced emergency and regardless of cost, you could increase your product within 1 year, say, as of its present character?

Mr. BRIDGEWATER. Well, Senator, it is hard to tell what the conditions would be. If you ask me to assume that this job would have absolute priority over everything else—and you would not ask me to assume that, because you know that that would be an impossible condition—that is, we could not say that all of the other defense activities of the Nation would have to stand aside, so the question is: How rapidly could we do this job without undue interference—whatever “undue interference” might mean—with our defense activities? And I know that there is not an oversupply of machinists and other skilled mechanics in this country, and I do know that the production of any chemical product requires mechanical equipment of a highly specialized nature, which has to be produced by the metal-working industries. I do not know to what extent it would be possible for those industries to turn out the equipment, and that would really be the test, the barrier, without drawing too heavily on supplies of metals and skilled labor and the type of machine tools that would be more urgently required for other purposes. But I would guess that it would take more than 2 years to put ourselves in a position to produce two or three hundred thousand tons a year of Neoprene, and perhaps 3 years. Of course, even to do it at that rate would be a very large undertaking.

Senator DOWNEY. Could you get up, do you think, to twenty-five or fifty thousand tons in a year?

Mr. BRIDGEWATER. Oh, yes, Senator; we will reach twenty-five or fifty thousand tons very soon, I think. We will reach 25,000 tons without any stimulation from defense needs. I told you that our production had been consistently doubling year after year, which means that today it is about nine times what it was in 1936. Our production—that is, our sales—and production must follow our sales—will probably a year hence be about double what we are selling today, and in another year four times as much.

Senator DOWNEY. But you are only selling about 3,000 tons a year now? Was not that your statement?

Mr. BRIDGEWATER. That is right. Well, that brings it, at the end of 2 years, at the present rate of growth, only 12,000 tons. Of course, it would not be at all difficult for us to build up our production to 25,000 in 2 years. That would be easy. That is something that may happen if the demand for our product should grow in the next 2 years at a somewhat faster rate than has prevailed in the last 2 years. We might well 2 years hence be producing such a tonnage.

Senator DOWNEY. Do you think that under forced pressure of every kind you could count on getting out, say—getting production within

1 year of \$25,000 or 50,000 tons within a year, a 12 months' period after you actually started?

MR. BRIDGEWATER. You say "under pressure," Senator. If you mean just exactly what you say, the answer is "yes." Under pressure in the last war we accomplished bigger undertakings than that in a year. But it was tremendous pressure, and it was done at tremendous cost, with tremendous sacrifice of efficiency, involving tremendous interference with normal activities of the Nation. But it could be done. I am speaking now of this modest program that you are discussing. It would not be particularly difficult for us in this matter. We have our production already developed to the point where expansion of 25,000 tons would involve merely multiplication of the units which have already been moved out in actual practice; that is, there would be no experimenting involved.

Senator DOWNEY. Mr. Bridgewater, could a seaplane be manufactured without utilizing any crude rubber?

MR. BRIDGEWATER. I do not think one ever has been manufactured without utilizing any crude rubber.

Senator DOWNEY. Just supposing we did not have any crude rubber; do you think that a seaplane, for instance, could be manufactured without it?

MR. BRIDGEWATER. Yes; I see no reason why Neoprene could not be used for all the rubber parts that go into a seaplane. I might say I think it would be more difficult to make a seaplane without Neoprene than to make it without rubber, because there has not been one made for some years, except perhaps in Germany, which has not utilized Neoprene.

Senator DOWNEY. Do you know anything about the rubber that they formerly used on the treads of caterpillars? They use rubber now, do they not, that allows them to go so much faster?

MR. BRIDGEWATER. Are you speaking of military caterpillars?

Senator DOWNEY. Yes.

MR. BRIDGEWATER. Senator, the testimony taken here is open to the public, is it not?

Senator DOWNEY. You can talk off the record, if you desire.

(Discussion off the record.)

Then, is it your advice to this committee that we should not make any effort on the part of the Government to force the manufacture of synthetic rubber or substitutes, until the emergency actually arose through the cutting off of crude rubber?

MR. BRIDGEWATER. Senator, the answer to that question would depend in part, I think, upon the degree of success that we may have in arranging for larger imports of crude rubber in the very near future, and I understand that that subject is receiving very careful consideration.

Senator DOWNEY. But, Mr. Bridgewater, there cannot be any substantial amount brought in, because the only rubber we can now get is what may hereafter come out of the trees; that is, above 15,000 or 20,000 tons. That is all there is available. Under the agreement, the Dutch and British have agreed to release 120,000 tons in the next 6 months above the consumption, but that 120,000 tons is still in the trees. It will have to be produced. We may never get it.

MR. BRIDGEWATER. We could not build any synthetic rubber plants

in the next 6 months either. I think that would be a very helpful addition to our stocks.

Senator DOWNEY. Of course, we want to get everything we can.

The CHAIRMAN. The Dutch may no longer own their rubber supplies. Japan has given notice that she will not tolerate any control of the East Indies by any other country than Holland, and Germany controls Holland. So the control of the rubber supply in the East Indies, our main source today, and the British main source, has probably passed away.

Senator DOWNEY. There is already an active alliance between Japan and Italy. I think we are going to be criminally neglectful if we do not assume the possibility that within the next few months we are not going to have any tin and rubber. I hope I am wrong.

Mr. BRIDGEWATER. Those are matters that you gentlemen know a great deal more about than I do. I want to point out this, however, that I hope you do not assume that nothing is being done except with the aid of governmental support, as has been suggested here. You will be interested to know that we are spending several million dollars this year for additional facilities. There has not been a year in the past five or six in which we have not added to our Neoprene production facilities. It is highly probable that our expenditures next year will be considerably in excess of our expenditures this year, because that has been the history of this business. In other words, we are extending the field of the so-called synthetic products all the time, and we are extending it on a profit-making basis. Of course, the extension that I look forward to in the next few years will come about, in part, through further reductions in our selling price, and in part too as a result of the continued growth on the part of the rubber manufacturers in the art of using Neoprene. So we may look forward to a continuously increasing state of preparedness month by month and year by year, regardless of any positive action of the Government. To be sure, positive action of the sort that has been suggested here this morning by someone—I do not recall whether it was one of you gentlemen or one of the witnesses—I think it was Mr. Collyer who suggested that perhaps the Government or certain branches of the Government might purchase synthetic rubber tires at an added cost, even though they were not worth the added cost, merely for the sake of giving the tire manufacturers an opportunity to acquire that experience. I think that would certainly be helpful, but it would be merely another increment. It would merely cause the industry to adapt itself a little more rapidly than it otherwise will.

The point I want to make clear is that this is not a new business. We have been in it for 9 years. It has been growing every year without any artificial stimulation of any kind. It is going to continue to grow. I think a little shot in the arm might help it. I think that too much stimulant would hurt it.

Senator DOWNEY. Let me ask you this, Mr. Bridgewater: Assuming that our supply of rubber is actually cut off, say, in 30 or 60 days from now; that Japan and Germany are down there and we are at war, then you would urge production of synthetic rubber immediately?

Mr. BRIDGEWATER. Of course.

Senator DOWNEY. Now, would you not think that under intelligent cooperation between the Government and industry, and harmonious cooperation, we might put up factories for synthetic rubber as rapidly as we could, 36,000-ton units as rapidly as we could, and still maintain experimental methods by which we would improve the product and decrease the price? Do you think that would necessarily result in a freezing of the product in the price?

Mr. BRIDGEWATER. No; it would not necessary happen, but it is the history of such things that they do happen that way. For example, as a private commercial enterprise we could not afford to make the huge expenditures for research that we are making every year if there were existing a production capacity that was far in excess of what the country could absorb in free competition with natural rubber; that is, if there were little prospects of our being able to build plants in the near future, we could not afford to continue the research if we were going to have no place to use it. And moreover, the research laboratory—laboratory research does not amount to anything until it is tried out in actual practice. The only way any industry grows is through research and production expansion and moving right along side by side, putting into effect this year the things you have learned in the laboratory last year. You can conduct experiments in laboratories forever—I mean not only speaking of the rubber industry but the experimental production of tires—testing can be carried on forever and you will not know anything about the problem. The only way the rubber industry has found out how to make 25,000-mile tires instead of 2,500-mile tires out of rubber is by building the tires and carrying on their research in the actual commercial use of the tires simultaneously. And that applies not only to rubber but to everything else.

(Mr. Bridgewater submitted the following paper:)

THE COMMERCIAL PRODUCTION AND USE OF NEOPRENE

(Statement of E. R. Bridgewater, of E. I. du Pont de Nemours & Co., before Military Affairs Committee of United States Senate, June 14, 1940)

Synthetic rubber was the subject of intensive research, in Germany, England, and Russia, during the years 1908 to 1914. These investigations were inspired by the high price of natural rubber which then prevailed and presumably in part by the prospect of war. A considerable amount of work had been done on synthetic rubber before this time with no practical results, but it was not until these years that synthetic-rubber investigations were liberally financed and aggressively pursued. The only result of the work done at that time was the production in Germany during the last war of 2,350 tons of an admittedly inferior product. Production was discontinued as soon as peace returned and, to the best of our knowledge, research was entirely discontinued throughout the world until 1925 when our country took up the problem. The object of all previous work had apparently been to duplicate as closely as possible the properties of natural rubber. Our goal, on the other hand, was a quite different one. We recognized that we could not hope to synthesize rubber as cheaply as it could be grown in the Far East, but we also recognized that rubber was being pressed into service for many industrial uses for which it was not at all well adapted, merely because there was no better product available. Our objective was to create a synthetic product which would be outstandingly superior for some of these industrial uses and hence capable of finding a commercial market in free competition with natural rubber even though its price were much higher.

Our laboratory investigations which extended through the years 1925-31 had to do principally with the production of rubberlike compounds from butadiene and related compounds. During the course of this work we discovered the previ-

cously unknown chemical compound, beta chlorobutadiene, and discovered also the process of polymerization by which we convert that chemical to Neoprene. Incidentally, Neoprene is not synthetic rubber in the strict sense of the term. When we speak of synthetic indigo or synthetic camphor, we mean a factory-made product that is chemically identical with natural indigo or natural camphor, which are agricultural products. No one has ever made a synthetic product that is identical with natural rubber. The term synthetic rubber has come to be used in a loose sense to mean any product whose properties even remotely resemble those of natural rubber.

Our first plant for the commercial production of Neoprene was constructed in 1931. Commercial production began in 1932 and our sales in each year since then have been more than double the sales of the preceding year with the exception of 1938 when the increase over the preceding year was smaller. However, in 1939 our sales were again more than double the sales for 1938, and at the present time we are shipping about 550,000 pounds a month of Neoprene, which represents an increase of fully 100 percent over the past 12 months.

The steady increase in the consumption of Neoprene is due in part to the fact that we have steadily reduced our selling price from \$1.05 a pound to the present price of 65 cents. A more important factor in the growth of the use of Neoprene is the continuous progress that American rubber manufacturers have made in developing the art of using Neoprene so as to make from it the best possible products. It must be remembered that Neoprene, being quite different from natural rubber, requires different formulations for its most effective use. The art of formulating or, as the trade says, compounding natural rubber has been developed over a period of many years to such a point that rubber manufacturers today are making products that are many times more serviceable than those of 20 or 30 years ago. This improvement in rubber products is perhaps the best known to the public in terms of improvement in tire mileage, but equal advances have been made in the art of compounding rubber for other purposes. It is important to bear in mind that the remarkable improvement that has been made in the quality of all rubber products has been accomplished without any improvement whatever in rubber itself. The art of compounding Neoprene is still very young, although remarkable advances have been made in the past 9 years, we anticipate that the rubber industry will make equally important advances in the future; hence, the quality of Neoprene products has been and will continue to be improved independent of any improvement that may be made in Neoprene itself as a result of our further researches.

We are selling Neoprene at the present time to about 250 American rubber manufacturers who are making from it practically all types of products that were previously made solely from natural rubber. Because of its higher price, Neoprene is used only when conditions of service are such that natural rubber is relatively short-lived. The fact that Neoprene is almost completely immune to sunlight deterioration accounts for many of its uses, such, for example, as sealing strips around the windows on high-altitude airplanes. Other properties of Neoprene that account for many of its commercial uses are its superior heat resistance and oil resistance as compared with natural rubber and the fact that it does not support combustion. It can be burned when a direct flame is applied to it, but the fire goes out as soon as the flame is removed. Neoprene is also more resistant to oxidation than natural rubber. It does not become either soft and sticky or hard and brittle due to the action of the oxygen in the air. Because of these unusual properties Neoprene parts are used in the automobile, airplane, shipbuilding, machine tool, electrical, and petroleum industries. Neoprene is also used for garments, shoes, gloves, hospital equipment, and so forth. There is hardly an industry that does not depend upon Neoprene to do a job that cannot be done with natural rubber.

Neoprene is used commercially in solid tires for industrial trucks and experimentally in pneumatic tires for highway service. It is not used commercially for that purpose because its cost is still too high. Commercial use in pneumatic tires is expected to develop as the price of Neoprene is reduced by reason of increased production and consequent lower cost. Neoprene is preferable to natural rubber for the outer surface of a tire because of its resistance to sunlight deterioration. This is a factor of particular importance in tractor tires and other types of tires not protected by fenders. Despite the industry's present limited experience in the production of tires from Neoprene, it is possible to produce tire tread compositions having abrasion resistance approximately equal

to that of the best natural rubber tire treads. It is expected that as the industry gains more experience it will be possible to improve this performance by a wide margin. Little or no effort has been made to use Neoprene as a substitute for the rubber compositions that bind together the layers of cord in a pneumatic tire. Neoprene has no properties that would tend to make it superior to natural rubber for this purpose and if the rubber industry were called upon promptly to substitute Neoprene for natural rubber at this point, it is likely that for a few years at least the quality of the tires would be poorer. The difference might be unnoticeable in passenger-car tires, but large truck tires built for carrying heavy loads at high speeds present a more difficult problem. The tire industry has spent 40 years learning how to build good tires from natural rubber. Much of this experience can be utilized in the development of Neoprene tires. However, years of experience with the actual commercial production of tires and their use under a wide variety of service conditions will be required before the industry can learn how to make the best tires that can be produced from Neoprene or any other new material.

Our experience with the large-scale production of Neoprene places us in a position to expand our production very rapidly if it should be necessary to do so. How rapidly it could be expanded depends upon the extent to which it would be deemed advisable to give construction of Neoprene plants priority over other elements of our rearmament program. The manufacture of any chemical product requires complicated mechanical equipment of a highly specialized nature. Large tonnages of steel, aluminum, and corrosion-resisting alloys would be required and a great deal of labor on the part of machinists and other skilled mechanics would also be necessary. Therefore, would it not seem unwise immediately to build synthetic rubber plants capable of supplying any substantial portion of our country's requirements if it is possible, by any means, to build up our reserve stocks of natural rubber to a figure that would take care of our requirements on a restricted wartime basis for a period of a year or so?

The immediate construction of huge synthetic rubber plants, which would not be self-supporting so long as natural rubber was available, seems unwise, not only because it would divert a substantial portion of the production of our metal-working industries from other defense activities of primary importance, but also because the synthetic rubber industry is still in the early stages of its development. Even after 9 years of experience in the commercial production, we still build Neoprene plants with the expectation, and even the hope, that they will become obsolete within 5 or 10 years. At the beginning of our commercial development obsolescence was even more rapid. We had so much to learn and were learning so fast that plants were out of date within a year after their completion. I fear that the construction of huge shadow plants would cause a cessation of new construction in the synthetic rubber industry for many years thereafter and, consequently, would retard the improvement of product, simplification of process, and lowering of production cost, which are now proceeding at a rapid rate. It is not unlikely that the immediate construction of synthetic rubber plants which would not be self-supporting might result in our being less well prepared to meet a rubber emergency in 1945.

However, if it should become necessary to provide synthetic rubber as a substitute for the natural product with the utmost speed, we have in Neoprene a product that the entire rubber industry has learned to use through 8 years of actual commercial experience. Neoprene is being currently used in substantial tonnage in all important American plants that produce a general line of rubber products and in most of the specialty plants that produce a limited range of articles. Assuming, as we hope will be the case, that adequate supplies of crude rubber will continue to be available, these manufacturers will in all probability again double their usage of Neoprene within the next year and their consumption will continue to increase for some years to come, aided, of course, by the much lower prices we expect to be able to offer.

In view of the rapid growth of the demand for Neoprene, we have found it necessary to make substantial expenditures for additional production facilities in each of the last 5 years. We are spending this year over \$2,000,000 for that purpose and within a few months will have a production capacity of 1,000,000 pounds a month. We expect to continue to add to our production capacity at such a rate as to keep us always a little ahead of the commercial demand for Neoprene. Granted the blessing of peace, we are forecasting that consumption of Neoprene a year hence will be about double the present rate and 2 years hence about four times greater.

If your committee wishes to make a more detailed study of our synthetic rubber position, we shall be glad to have your representatives visit our plant and to show them some of the hundreds of products that are being made from Neoprene every day. If your committee has further questions with respect to Neoprene, I shall be glad to answer them to the best of my ability.

The CHAIRMAN. Are there any further questions? We appreciate very much your being with us and the information you have given us, Mr. Bridgewater. I want to thank all of you gentlemen.

(Whereupon, at 12:40 p. m., the committee adjourned.)





Dec. 17



77TH CONGRESS
1ST SESSION

H. R. 6262

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 17, 1941

Mr. ANDERSON of California introduced the following bill; which was referred to the Committee on Agriculture

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment the right to operate under patents, now held by the
7 Intercontinental Rubber Company or any of its subsidiaries,
8 relating to the planting of guayule or the extraction of rubber
9 therefrom, and to acquire such properties, processes, records,
10 and data as are necessary to such operation;

1 (2) To plant, or contract for the planting of, not in ex-
2 cess of forty-five thousand acres of guayule in areas in the
3 United States where the best growth and yields may be
4 expected in order to maintain a nucleus planting of guayule
5 to serve as a domestic source of crude rubber as well as of
6 planting material for use in further expanding guayule plant-
7 ing to meet emergency needs of the United States for crude
8 rubber; to establish and maintain nurseries to provide seed-
9 lings for field plants; and to purchase necessary equipment
10 and facilities;

11 (3) To acquire by purchase, lease, or other agreement
12 rights to land for the purpose of making plantings of guayule;
13 to make surveys, directly or through appropriate Govern-
14 ment agencies, of areas in the United States where guayule
15 might be grown; and to establish and maintain records indi-
16 cating areas to which guayule cultivation could be extended
17 for emergency production;

18 (4) To construct, operate, or contract for the operation
19 of, factories for the extraction of rubber from guayule; and to
20 purchase, operate, and maintain equipment for the harvest-
21 ing, storing, transporting, and complete processing of guayule;

22 (5) To conduct studies, in which he may cooperate with
23 any other public or private agency, designed to increase the
24 yield of guayule by breeding or by selection, and to improve
25 planting methods; to make surveys of areas suitable for cul-

1 tivating guayule; to make experimental plantings; and to
2 conduct agronomic tests;

3 (6) To conduct tests, in which he may cooperate with
4 any other public or private agency, to determine the qualities
5 of rubber manufactured from guayule and to determine the
6 most favorable methods of compounding and using guayule
7 in rubber manufacturing processes;

8 (7) To improve methods of processing guayule and to
9 obtain and hold patents on such new processes; and

10 (8) To sell guayule or rubber processed from guayule
11 and to use funds so obtained in replanting and maintaining
12 an area of forty-five thousand acres of guayule inside the
13 United States.

14 SEC. 2. (a) The Secretary may appoint such employees
15 as may be necessary for carrying out the provisions of this
16 Act, subject to the civil-service laws, and the rates of com-
17 pensation of such employees shall be fixed in accordance with
18 the Classification Act of 1923, as amended.

19 (b) The Secretary shall determine the character and ne-
20 cessity for the expenditures under this Act and the manner in
21 which they shall be incurred, allowed, and paid, without
22 regard to the provisions of any other laws governing the
23 expenditure of public funds, and such determinations shall
24 be final and conclusive upon all other officers of the Govern-
25 ment.

1 (c) The Secretary shall at all times maintain complete
2 and accurate books of account and shall submit, as soon as
3 practicable after January 1 of each year, an annual report to
4 Congress of his activities under this Act. The General Ac-
5 counting Office shall audit the financial transactions of the
6 Secretary under this Act once each year for the sole purpose
7 of making a report to Congress, together with such recom-
8 mendations as the Comptroller General of the United States
9 may deem advisable: *Provided, however,* That such report
10 shall not be made until the Secretary shall have had rea-
11 sonable opportunity to examine the report, to point out
12 errors therein, explain any criticism contained therein, and
13 to file a statement which shall be submitted by the Comp-
14 troller General with his report;

15 (d) All money made available to carry out this Act may
16 be deposited with the Treasurer of the United States, in any
17 Federal Reserve bank, or in any bank approved by the Sec-
18 retary of the Treasury and shall be subject to withdrawal at
19 any time;

20 (e) The Secretary may delegate any of the powers and
21 duties conferred on him by this Act to any agency or bureau
22 of the Department of Agriculture;

23 (f) The Secretary, with the consent of any board, com-
24 mission, independent establishment, corporation, or executive
25 department of the Government, including any field service

1 thereof, may avail himself of the use of information, serv-
2 ices, facilities, officers and employees thereof, in carrying
3 out the provisions of this Act;

4 (g) The Secretary may allot to bureaus and offices of the
5 Department of Agriculture or transfer to such other agencies
6 of the State and Federal Governments as may be requested
7 by him to assist in carrying out this Act any funds made
8 available to him under this Act.

9 SEC. 3. There are authorized to be appropriated such
10 amounts as may be necessary to carry out the provisions
11 of this Act. Any such amounts appropriated and any funds
12 received by the Secretary under this Act shall remain per-
13 manently available for the purposes of this Act without
14 regard to any other laws concerning availability and dispo-
15 sition of appropriated funds and the disposition of funds
16 collected by officers or agencies of the United States.

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. ANDERSON of California

DECEMBER 17, 1941

Referred to the Committee on Agriculture

77TH CONGRESS
1ST SESSION

S. 2152

IN THE SENATE OF THE UNITED STATES

DECEMBER 22, 1941

Mr. DOWNEY introduced the following bill; which was read twice and referred to the Committee on Military Affairs

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment the right to operate under patents, now held by the
7 Intercontinental Rubber Company or any of its subsidiaries,
8 relating to the planting of guayule or the extraction of rubber
9 therefrom, and to acquire such properties, processes, records,
10 and data as are necessary to such operation;

1 (2) To plant, or contract for the planting of, not in ex-
2 cess of forty-five thousand acres of guayule in areas in the
3 United States where the best growth and yields may be
4 expected in order to maintain a nucleus planting of guayule
5 to serve as a domestic source of crude rubber as well as of
6 planting material for use in further expanding guayule plant-
7 ing to meet emergency needs of the United States for crude
8 rubber; to establish and maintain nurseries to provide seed-
9 lings for field plants; and to purchase necessary equipment
10 and facilities;

11 (3) To acquire by purchase, lease, or other agreement
12 rights to land for the purpose of making plantings of guayule;
13 to make surveys, directly or through appropriate Govern-
14 ment agencies, of areas in the United States where guayule
15 might be grown; and to establish and maintain records indi-
16 cating areas to which guayule cultivation could be extended
17 for emergency production;

18 (4) To construct, operate, or contract for the operation
19 of, factories for the extraction of rubber from guayule; and to
20 purchase, operate, and maintain equipment for the harvest-
21 ing, storing, transporting, and complete processing of guayule;

22 (5) To conduct studies, in which he may cooperate with
23 any other public or private agency, designed to increase the
24 yield of guayule by breeding or by selection, and to improve
25 planting methods; to make surveys of areas suitable for cul-

1 tivating guayule; to make experimental plantings; and to
2 conduct agronomic tests;

3 (6) To conduct tests, in which he may cooperate with
4 any other public or private agency, to determine the qualities
5 of rubber manufactured from guayule and to determine the
6 most favorable methods of compounding and using guayule
7 in rubber manufacturing processes;

8 (7) To improve methods of processing guayule and to
9 obtain and hold patents on such new processes; and

10 (8) To sell guayule or rubber processed from guayule
11 and to use funds so obtained in replanting and maintaining
12 an area of forty-five thousand acres of guayule inside the
13 United States.

14 SEC. 2. (a) The Secretary may appoint such employees
15 as may be necessary for carrying out the provisions of this
16 Act, subject to the civil-service laws, and the rates of com-
17 pensation of such employees shall be fixed in accordance with
18 the Classification Act of 1923, as amended.

19 (b) The Secretary shall determine the character and
20 necessity for the expenditures under this Act and the manner
21 in which they shall be incurred, allowed, and paid, without
22 regard to the provisions of any other laws governing the
23 expenditure of public funds, and such determinations shall
24 be final and conclusive upon all other officers of the Govern-
25 ment.

1 (c) The Secretary shall at all times maintain complete
2 and accurate books of account and shall submit, as soon as
3 practicable after January 1 of each year, an annual report to
4 Congress of his activities under this Act. The General Ac-
5 counting Office shall audit the financial transactions of the
6 Secretary under this Act once each year for the sole purpose
7 of making a report to Congress, together with such recom-
8 mendations as the Comptroller General of the United States
9 may deem advisable: *Provided, however,* That such report
10 shall not be made until the Secretary shall have had rea-
11 sonable opportunity to examine the report, to point out
12 errors therein, explain any criticism contained therein, and
13 to file a statement which shall be submitted by the Comp-
14 troller General with his report;

15 (d) All money made available to carry out this Act may
16 be deposited with the Treasurer of the United States, in any
17 Federal Reserve bank, or in any bank approved by the Sec-
18 retary of the Treasury and shall be subject to withdrawal at
19 any time;

20 (e) The Secretary may delegate any of the powers and
21 duties conferred on him by this Act to any agency or bureau
22 of the Department of Agriculture;

23 (f) The Secretary, with the consent of any board, com-
24 mission, independent establishment, corporation, or executive
25 department of the Government, including any field service

1 thereof, may avail himself of the use of information, serv-
2 ices, facilities, officers and employees thereof, in carrying
3 out the provisions of this Act;

4 (g) The Secretary may allot to bureaus and offices of the
5 Department of Agriculture or transfer to such other agencies
6 of the State and Federal Governments as may be requested
7 by him to assist in carrying out this Act any funds made
8 available to him under this Act.

9 SEC. 3. There are authorized to be appropriated such
10 amounts as may be necessary to carry out the provisions
11 of this Act. Any such amounts appropriated and any funds
12 received by the Secretary under this Act shall remain per-
13 manently available for the purposes of this Act without
14 regard to any other laws concerning availability and dispo-
15 sition of appropriated funds and the disposition of funds
16 collected by officers or agencies of the United States.

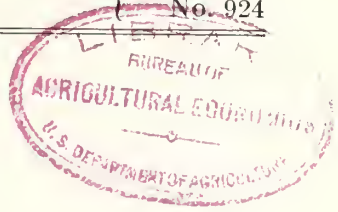
A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. DOWNEY

DECEMBER 22, 1941

Read twice and referred to the Committee on Military
Affairs



GUAYULE RUBBER

DECEMBER 23, 1941.—Ordered to be printed

Mr. DOWNEY, from the Committee on Military Affairs, submitted the following

REPORT

[To accompany S. 2152]

The Committee on Military Affairs, to whom was referred the bill (S. 2152) to authorize the Secretary of Agriculture to proceed with the production of guayule rubber, having carefully considered the same, after sufficient hearings, submit the following report thereon with recommendation that it do pass.

It is now possible that for an indefinite period all rubber imports from Asia to the United States will be prevented by Japanese military forces. At present we have in the United States something less than 700,000 tons of rubber, which is about the amount required for 1 year of normal use. If this tonnage is used only for military purposes and other vital purposes it will last somewhere around 30 months.

The committee is therefore of the opinion that energetic means should be taken to develop in the United States every possible source of rubber supply. These include factories to produce synthetic rubber, improve methods of reclaiming and utilizing old stocks, encouraging shipments from Latin America, and last, and probably most important, the planting and processing of the wild rubber shrub, the guayule plant.

The committee does not believe it necessary to discuss at length the respective possibilities and costs of these different means of adding to our rubber supply. This, because the committee believes that every governmental agency charged with any responsibility to help solve our rubber problem should vigorously develop every potential rubber source. Even the widest and most energetic efforts may leave us with a critical lack of rubber if the enemy can control Asiatic oceans more than 2 or 3 years.

The committee has been assured by several competent rubber experts that the product of the guayule plant is very similar to the present crude rubber now being used and may readily be substituted for it. Its cost of production will be about 22 cents a pound, which is

- 9 therefrom, and to acquire such properties, processes, records,
- 10 and data as are necessary to such operation;

1 (2) To plant, or contract for the planting of, not in ex-
2 cess of forty-five thousand acres of guayule in areas in the
3 United States where the best growth and yields may be
4 expected in order to maintain a nucleus planting of guayule
5 to serve as a domestic source of crude rubber as well as of
6 planting material for use in further expanding guayule plant-
7 ing to meet emergency needs of the United States for crude
8 rubber; to establish and maintain nurseries to provide seed-
9 lings for field plants; and to purchase necessary equipment
10 and facilities;

11 (3) To acquire by purchase, lease, or other agreement
12 rights to land for the purpose of making plantings of guayule;
13 to make surveys, directly or through appropriate Govern-
14 ment agencies, of areas in the ~~United States~~ *Western Hemi-*
15 *sphere* where guayule might be grown; and to establish and
16 maintain records indicating areas to which guayule cultiva-
17 tion could be extended for emergency production;

18 (4) To construct, operate, or contract for the operation
19 of, factories for the extraction of rubber from guayule; and to
20 purchase, operate, and maintain equipment for the harvest-
21 ing, storing, transporting, and complete processing of guayule;

22 (5) To conduct studies, in which he may cooperate with
23 any other public or private agency, designed to increase the
24 yield of guayule by breeding or by selection, and to improve
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1 tivating guayule; to make experimental plantings; and to
2 conduct agronomic tests;

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4 any other public or private agency, to determine the qualities
5 of rubber manufactured from guayule and to determine the
6 most favorable methods of compounding and using guayule
7 in rubber manufacturing processes;

8 (7) To improve methods of processing guayule and to
9 obtain and hold patents on such new processes; and

10 (8) To sell guayule or rubber processed from guayule
11 and to use funds so obtained in replanting and maintaining
12 an area of forty-five thousand acres of guayule inside the
13 ~~United States~~ *Western Hemisphere*.

14 SEC. 2. (a) The Secretary may appoint such employees
15 as may be necessary for carrying out the provisions of this
16 Act, subject to the civil-service laws, and the rates of com-
17 pensation of such employees shall be fixed in accordance with
18 the Classification Act of 1923, as amended.

19 (b) The Secretary shall determine the character and
20 necessity for the expenditures under this Act and the manner
21 in which they shall be incurred, allowed, and paid, without
22 regard to the provisions of any other laws governing the
23 expenditure of public funds, and such determinations shall
24 be final and conclusive upon all other officers of the Govern-
25 ment.

1 (c) The Secretary shall at all times maintain complete
2 and accurate books of account and shall submit, as soon as
3 practicable after January 1 of each year, an annual report to
4 Congress of his activities under this Act. The General Ac-
5 counting Office shall audit the financial transactions of the
6 Secretary under this Act once each year for the sole purpose
7 of making a report to Congress, together with such recom-
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9 may deem advisable: *Provided, however,* That such report
10 shall not be made until the Secretary shall have had rea-
11 sonable opportunity to examine the report, to point out
12 errors therein, explain any criticism contained therein, and
13 to file a statement which shall be submitted by the Comp-
14 troller General with his report;

15 (d) All money made available to carry out this Act may
16 be deposited with the Treasurer of the United States, in any
17 Federal Reserve bank, or in any bank approved by the Sec-
18 retary of the Treasury and shall be subject to withdrawal at
19 any time;

20 (e) The Secretary may delegate any of the powers and
21 duties conferred on him by this Act to any agency or bureau
22 of the Department of Agriculture;

23 (f) The Secretary, with the consent of any board, com-
24 mission, independent establishment, corporation, or executive
25 department of the Government, including any field service

1 thereof, may avail himself of the use of information, serv-
2 ices, facilities, officers and employees thereof, in carrying
3 out the provisions of this Act;

4 (g) The Secretary may allot to bureaus and offices of the
5 Department of Agriculture or transfer to such other agencies
6 of the State and Federal Governments as may be requested
7 by him to assist in carrying out this Act any funds made
8 available to him under this Act.

9 SEC. 3. There are authorized to be appropriated such
10 amounts as may be necessary to carry out the provisions
11 of this Act. Any such amounts appropriated and any funds
12 received by the Secretary under this Act shall remain per-
13 manently available for the purposes of this Act without
14 regard to any other laws concerning availability and dispo-
15 sition of appropriated funds and the disposition of funds
16 collected by officers or agencies of the United States.

77TH CONGRESS
1ST SESSION

S. 2152

[Report No. 924]

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. DOWNNEY

DECEMBER 22, 1941

Read twice and referred to the Committee on Military
Affairs

DECEMBER 23, 1941

Reported with amendments

IN THE SENATE OF THE UNITED STATES

DECEMBER 22, 1941

Mr. DOWNEY introduced the following bill; which was read twice and referred to the Committee on Military Affairs

DECEMBER 23, 1941

Reported by Mr. DOWNEY, with amendments

[Omit the part struck through and insert the part printed in *italic*]

JANUARY 5, 1942

Recommitted to the Committee on Military Affairs

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
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 5 to serve as a domestic source of crude rubber as well as of
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 7 ing to meet emergency needs of the United States for crude
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 15 *sphere* where guayule might be grown; and to establish and
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 17 tion could be extended for emergency production;

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 19 of, factories for the extraction of rubber from guayule; and to
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 24 yield of guayule by breeding or by selection, and to improve
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1 tivating guayule; to make experimental plantings; and to
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5 of rubber manufactured from guayule and to determine the
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9 obtain and hold patents on such new processes; and

10 (8) To sell guayule or rubber processed from guayule
11 and to use funds so obtained in replanting and maintaining
12 an area of forty-five thousand acres of guayule inside the
13 ~~United States~~ *Western Hemisphere*.

14 SEC. 2. (a) The Secretary may appoint such employees
15 as may be necessary for carrying out the provisions of this
16 Act, subject to the civil-service laws, and the rates of com-
17 pensation of such employees shall be fixed in accordance with
18 the Classification Act of 1923, as amended.

19 (b) The Secretary shall determine the character and
20 necessity for the expenditures under this Act and the manner
21 in which they shall be incurred, allowed, and paid, without
22 regard to the provisions of any other laws governing the
23 expenditure of public funds, and such determinations shall
24 be final and conclusive upon all other officers of the Govern-
25 ment.

1 (c) The Secretary shall at all times maintain complete
2 and accurate books of account and shall submit, as soon as
3 practicable after January 1 of each year, an annual report to
4 Congress of his activities under this Act. The General Ac-
5 counting Office shall audit the financial transactions of the
6 Secretary under this Act once each year for the sole purpose
7 of making a report to Congress, together with such recom-
8 mendations as the Comptroller General of the United States
9 may deem advisable: *Provided, however,* That such report
10 shall not be made until the Secretary shall have had rea-
11 sonable opportunity to examine the report, to point out
12 errors therein, explain any criticism contained therein, and
13 to file a statement which shall be submitted by the Comp-
14 troller General with his report;

15 (d) All money made available to carry out this Act may
16 be deposited with the Treasurer of the United States, in any
17 Federal Reserve bank, or in any bank approved by the Sec-
18 retary of the Treasury and shall be subject to withdrawal at
19 any time;

20 (e) The Secretary may delegate any of the powers and
21 duties conferred on him by this Act to any agency or bureau
22 of the Department of Agriculture;

23 (f) The Secretary, with the consent of any board, com-
24 mission, independent establishment, corporation, or executive
25 department of the Government, including any field service

1 thereof, may avail himself of the use of information, serv-
2 ices, facilities, officers and employees thereof, in carrying
3 out the provisions of this Act;

4 (g) The Secretary may allot to bureaus and offices of the
5 Department of Agriculture or transfer to such other agencies
6 of the State and Federal Governments as may be requested
7 by him to assist in carrying out this Act any funds made
8 available to him under this Act.

9 SEC. 3. There are authorized to be appropriated such
10 amounts as may be necessary to carry out the provisions
11 of this Act. Any such amounts appropriated and any funds
12 received by the Secretary under this Act shall remain per-
13 manently available for the purposes of this Act without
14 regard to any other laws concerning availability and dispo-
15 sition of appropriated funds and the disposition of funds
16 collected by officers or agencies of the United States.



A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. Downey

DECEMBER 22, 1941

Read twice and referred to the Committee on Military Affairs

DECEMBER 23, 1941

Reported with amendments

JANUARY 5, 1942

Recommitted to the Committee on Military Affairs

77TH CONGRESS
2D SESSION

H. R. 6299

IN THE HOUSE OF REPRESENTATIVES

JANUARY 5, 1942

Mr. ANDERSON of California introduced the following bill; which was referred to the Committee on Agriculture

A BILL

To provide for the planting of seventy-five thousand acres of guayule or other rubber-bearing plants in order to make available a domestic source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agreement,
6 or by condemnation, the right to operate under processes or
7 patents, now held by the Intercontinental Rubber Company
8 or any of its subsidiaries, or by other companies or indi-
9 viduals, relating to the growing and harvesting of guayule

1 or the extraction of rubber therefrom, and such properties,
2 processes, records, and data as are necessary to such opera-
3 tion;

4 (2) To plant, or contract for the planting of, not in
5 excess of seventy-five thousand acres of guayule in areas in
6 the Western Hemisphere where the best growth and yields
7 may be expected in order to maintain a nucleus planting of
8 guayule to serve as a domestic source of crude rubber as
9 well as of planting material for use in further expanding
10 guayule planting to meet emergency needs of the United
11 States for crude rubber; to establish and maintain nurseries
12 to provide seedlings for field plants; and to purchase neces-
13 sary equipment and facilities;

14 (3) To acquire by purchase, lease, or other agreement,
15 or by condemnation, rights to land for the purpose of making
16 plantings of guayule; to make surveys, directly or through
17 appropriate Government agencies, of areas in the Western
18 Hemisphere where guayule might be grown; and to estab-
19 lish and maintain records indicating areas to which guayule
20 cultivation could be extended for emergency production;

21 (4) To construct, operate, or contract for the operation
22 of, factories for the extraction of rubber from guayule; and
23 to purchase, operate, and maintain equipment for the harvest-
24 ing, storing, transporting, and complete processing of
25 guayule;

1 (5) To conduct studies, in which he may cooperate with
2 any other public or private agency, designed to increase the
3 yield of guayule by breeding or by selection, and to improve
4 planting methods; to make surveys of areas suitable for
5 cultivating guayule; to make experimental plantings; and to
6 conduct agronomic tests;

7 (6) To conduct tests, in which he may cooperate with
8 any other public or private agency, to determine the qualities
9 of rubber obtained from guayule and to determine the most
10 favorable methods of compounding and using guayule in
11 rubber manufacturing processes;

12 (7) To improve methods of processing guayule shrubs
13 and rubber and to obtain and hold patents on such new
14 processes;

15 (8) To sell guayule or rubber processed from guayule
16 and to use funds so obtained in replanting and maintaining an
17 area of seventy-five thousand acres of guayule inside the
18 Western Hemisphere; and

19 (9) To exercise with respect to rubber-bearing plants other
20 than guayule the same powers granted in section (1) with
21 respect to guayule but the total acreage of all plantings under
22 the authority granted in paragraph (2) shall not exceed
23 seventy-five thousand acres.

24 SEC. 2. (a) The Secretary shall appoint such employees,
25 including citizens of countries in the Western Hemisphere,

1 as may be necessary for carrying out the provisions of this
2 Act, which appointments may be made without regard to the
3 civil-service laws and regulations, and may fix their com-
4 pensation without regard to the provisions of the Classifica-
5 tion Act of 1923, as amended. The appointment of em-
6 ployees by the Secretary under the provisions of this Act
7 shall be made only on the basis of merit and efficiency.

8 (b) Notwithstanding the provisions of any other law
9 governing the expenditure of public funds, the General Ac-
10 counting Office shall not disallow credit for, nor withhold
11 funds because of, any expenditure which the Secretary shall
12 determine to have been necessary to carry out the provisions
13 of this Act.

14 (c) The Secretary may delegate any of the powers and
15 duties conferred on him by this Act to any agency or bureau
16 of the Department of Agriculture;

17 (d) The Secretary, with the consent of any board, com-
18 mission, independent establishment, corporation, or execu-
19 tive department of the Government, including any field service
20 thereof, may avail himself of the use of information, services,
21 facilities, officers, and employees thereof, in carrying out the
22 provisions of this Act;

23 (e) The Secretary may allot to bureaus and offices of the
24 Department of Agriculture or transfer to such other agencies
25 of the State and Federal Governments as may be requested

1 by him to assist in carrying out this Act any funds made
2 available to him under this Act.

3 SEC. 3. There are authorized to be appropriated such
4 amounts as may be necessary to carry out the provisions of
5 this Act. Any such amounts appropriated and any funds
6 received by the Secretary under this Act shall remain per-
7 manently available for the purposes of this Act without regard
8 to any other laws concerning availability and disposition
9 of appropriated funds and the disposition of funds collected
10 by officers or agencies of the United States.

A BILL

To provide for the planting of seventy-five thousand acres of guayule or other rubber-bearing plants in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. ANDERSON of California

JANUARY 5, 1942

Referred to the Committee on Agriculture

measure which became the Federal Reserve Act, one of the most important measures which has ever been enacted by the Congress of the United States.

In the fight over that measure in the House, Mr. GLASS displayed superb leadership. It was a difficult bill to get passed through the Congress at that time. Mr. GLASS' knowledge of the subject was so thorough, his intellect was so keen, his ability was so outstanding, that he mowed down all obstacles, and, far more than any other man in the United States, he was responsible for the Federal Reserve Act, and I believe by common accord he has been given the honor of being the father of the act, and it should be so, for he was the author of the legislation.

I learned to know CARTER GLASS then, respected and admired and esteemed him more and more as I came to know him better. I think he is one of the finest men who ever sat in either body of the Congress, certainly during the time I have been a Member of Congress. He possesses a magnificent intellect and a very keen mind, but, over and above all, he has certain qualities which mean more than anything else in this life. He has courage as great as any man ever possessed, courage to think straight, courage to act in accordance with his opinions, courage to do what is right, courage to be what is right. He is not afraid to face any question; he is not afraid of any person in the world. He is one of the most admirable characters I have ever known.

I have served with CARTER GLASS for nearly 20 years on the Committee on Appropriations of the Senate. He is kind, gentle, strong, vigorous, willing to give and take; yet in the management and in the proceedings of his committee never will he permit anything but what is fair, square, honest, and upright.

Mr. President, I hope Senator GLASS may have many, many more years in this body. I love him as a man; I admire him as a statesman; I think he is one of the most remarkable Americans this country ever produced.

RESOLUTIONS OF BUTLER COUNTY (KANS.) FARM BUREAU

Mr. CAPPER. Mr. President, I present and ask unanimous consent to have printed in the RECORD resolutions adopted by the Butler County Farm Bureau at its recent annual meeting at El Dorado, Kans., setting forth the farm program which that organization is supporting.

There being no objection, the resolutions were ordered to be printed in the RECORD, as follows:

We are in war today. We, the Butler County Farm Bureau, resolve to support the Constitution of the United States and any action taken by our Government in this time of emergency.

Farm program: We believe that the Soil Conservation Act has been indispensable to the efforts of agriculture to receive parity income and maintain soil fertility, therefore we favor the national farm program and urge its continuation with new improvements as gained by experience.

Farm credit: We favor the farm-credit system including the Federal land bank and Production Credit Corporation, and believe in the principle that the farmer borrowers

should continue to have control of this system.

Taxes: In order to promote home ownership and family-sized farms we encourage further reduction of taxes on all real estate.

Deferment of farm labor: We heartily endorse the action of our executive board in their request that farm operators and farm help be deferred from selective service wherever possible.

Because of the fine training received by our boys and girls in 4-H Club work and because 4-H Club work is an important part of the extension program in the county, we express our sincere appreciation to each of the men and women of the county who are giving of their time in leadership work in the 4-H Clubs.

RESOLUTIONS FROM THE STATE OF WISCONSIN

Mr. WILEY presented resolutions adopted by two organizations in Wisconsin, which were ordered to be printed in the RECORD, as follows:

RESOLUTION ADOPTED BY THE BOARD OF DIRECTORS OF THE DUNN COUNTY ELECTRIC COOPERATIVE AT A SPECIAL MEETING HELD DECEMBER 8, 1941, AT MENOMONIE, WIS.

Be it hereby resolved, That whereas there is developing an increased use of electric energy, particularly in rural communities in northwestern Wisconsin; and

Whereas this cooperative is engaged in the business of distributing electric energy to its approximately 1,400 rural members in the counties of Dunn, Pepin, Pierce, St. Croix, Barron, Chippewa, and Eau Claire; and

Whereas there is no surplus of available electric energy being generated in this community; and

Whereas there is in northwestern Wisconsin, on the Kettle River near Grantsburg, Burnett County, Wis., a site where a valuable hydroelectric development could be installed, which would furnish electricity to northwestern Wisconsin and northeastern Minnesota; and

Whereas this board of directors is of the opinion that the continued expansion of the use of electric energy in northwestern Wisconsin is in the national and public interest: Now, therefore, be it

Resolved, That the undersigned respectfully petition the Congress of the United States and all other governmental bodies and agencies having jurisdiction in the premises, that the Kettle River project be approved and carried through to its final completion; be it further

Resolved, That a copy of this resolution be sent to Hon. ROBERT M. LA FOLLETTE, United States Senator; Hon. ALEX WILEY, United States Senator; Hon. MERLIN HULL, Representative in Congress; and Hon. B. J. GEHRMANN, Representative in Congress.

GOLDEN WEDDING ANNIVERSARY OF ROYAL AND CLARA DAVIDSON

Whereas this being the fiftieth year of the married life of Royal and Clara Davidson and furthermore the fiftieth year of their life with the Northwestern Military and Naval Academy; and

Whereas it seems fitting for them to observe this Christmas and New Year season with a special golden anniversary, and by proclamation are extending to those closely associated with them and their many other friends a sincere wish for Christmas full of happiness and a new year that will bring good health, contentment, and the joy that comes with service, closing with this prayer: "May the year 1942 bring peace to all mankind"; and

Whereas the Northwestern Military and Naval Academy was established by the late Col. H. P. Davidson in 1888, and its work, dedicated to the service of youth, has been carried on by Royal and Clara Davidson; and

Whereas the outstanding practice of this school of instilling in youth a high sense of honor and good citizenship and equipping young men with physical fitness and scholastic attainment is promoting the most valuable asset necessary to combat influences destructive to the building of a great nation; and

Whereas it teaches the sound basic principles of life and government embodied in our Constitution; and

Whereas the faculty consists only of members who promote respect for this country's statutes and flag for law and order, who show 100-percent allegiance to the Government of the United States and its Constitution, and maintain high standards of Christian character and principles: Therefore be it

Resolved by the board of managers of the Wisconsin Society, Sons of the American Revolution, speaking for its membership in the Army, Navy, and Air Corps and those other members in civilian life scattered from Shanghai, China to New York City, to send greetings and best wishes to Royal and Clara Davidson on their golden wedding anniversary and commend our worthy compatriot and his helpmate for their services to youth at the academy in the building of manly, patriotic, and Christian citizens; and be it further

Resolved, That we extend our hearty congratulations to them on this, their golden wedding anniversary, with wishes for many yearly anniversaries in the future; be it further

Resolved, That the secretary be directed to record this resolution this 20th day of December 1941, and send a copy to Col. and Mrs. R. P. Davidson, Lake Geneva, Wis.

ORDER FREEZING STOCKS OF NEW AUTO- MOBILES AND TIRES

Mr. DAVIS. Mr. President, numerous letters and telegrams have come to me calling attention to the impact of the Government order freezing stocks of new cars and tires.

This is working a very great hardship to thousands of dealers and salesmen. I ask that these communications and telegrams be printed in the RECORD and referred to the Senate Defense Committee, of which the Senator from Missouri [Mr. TRUMAN] is the chairman, and request an immediate investigation of the situation.

There being no objection, the letters and telegrams were referred to the Special Committee to Investigate the National Defense Program and ordered to be printed in the RECORD, as follows:

L. A. LEATHERS CO.,
Brookville, Pa., January 3, 1942.
Senator JAMES J. DAVIS,
Washington, D. C.

DEAR SIR: It took me 30 years to build my business, now employing over 50 men, with the third largest constant pay roll in this community.

I am willing to sacrifice this life's work if it will win the war. However, it may not be necessary to make "a Pearl Harbor" out of it if a more careful study were made. I am writing this not only for myself but for over 40,000 other automobile dealers.

Yours very truly,

L. A. LEATHERS CO.,
By L. A. LEATHERS.

BAEHR BROS.,
McKeesport, Pa., January 3, 1942.

Hon. J. J. DAVIS,
Senator, Washington, D. C.

DEAR SIR: The recent order freezing the stock of new cars and trucks is justified because of the serious rubber situation, but

it will produce disastrous results on practically all of the 44,000 dealers and their one-half million employees.

Rationing of cars particularly will prolong the sales completions and greatly increase dealer expenses. Scarcity of rubber will reduce income from service departments because of lessened use of vehicles.

These facts justify new-car ceilings, if any, at present, on recent retail prices charged by individual dealers, plus 1 percent per month handling charge, and a very liberal used-car ceiling, if any.

Also very important and fair that any units purchased or requisitioned by the Government be bought at above prices, with no discounts. Distributions should be made through dealers.

We urge you to put every effort behind this endeavor.

Sincerely yours,

Baehr Bros. and their employees:
John Baehr, Geo. Baehr, William C. Peckman, R. E. Thrush, R. J. Satterlee, Wm. Manur, Clarence Manur, Michael Kernishin, Betty Pribish, Mary Jane Petrella, Dorothy Sillaman, Leonard Anthony, Elmer Steinmeyer, Michael Jordan, Howard Kestler, Harry Kestler, Edward Walsh, Mike Colerchi, W. L. Walsh, R. Lockwood, Geo. Allshaine, Phil Petrulli, Oscar Fleming, Elmer Hudock, John Benedek, Joe Rohall, John E. Andrews, Thayer D. Forsht, Joseph Andrews, Stanley Gibala, Leonard Andrews, Peter DeCecco, Lou Vodopivec, Willie Coleman, Fred Pryor, John Ring, Eileen Ring, Mary Rita Lacey, Jack Fox, Geo. Broyaunch, Geo. Rainsh, Mike Andrews, Charles Kuzey.

PORT ALLEGANY, PA., January 3, 1942.

Senator J. J. DAVIS,

Senate Office Building,

Due to freezing stock of new car, request very liberal used-car ceiling. Request full retail price of all new units sold to Government or requisitioned by Government; no discounts. Cars to be distributed through dealer, give us a chance to hold our business and retain our livelihood.

McKEAN COUNTY MOTORS,
F. M. BRINER.

PORT ALLEGANY, PA., January 3, 1942.

Senator J. J. DAVIS,

Senate Office Building,

Washington, D. C.:

We have 15 family men that will be out of work unless this freeze-out on new cars and tires isn't lifted. I cannot understand how this will better the country. I personally have signed to buy a defense bond a month. How can I do this if unemployed?

PAULINE MILGATE,
Secretary, McKean County Motors.

McKEESPORT, PA., January 3, 1942.

Hon. JAMES J. DAVIS,

Senate Office Building,

Washington, D. C.:

Your consideration in the manner in which new passenger cars will be sold or rationed will be greatly appreciated. We suggest the following procedure: New-car price ceiling at present delivered price plus 1 percent per month beginning January 1, 1942. Government to pay full delivered price. All cars to be distributed through dealers. Used-car price ceiling to be liberal. We need your help.

THE W. W. HUNTER CO,
HARRY D. ROJOHN, General Manager.

WILKES-BARRE, PA., January 4, 1942.

Hon. JAMES J. DAVIS,
Washington, D. C.:

If it's a question of guns or automobiles, it must, of course, be guns. However, freezing order on automobiles almost automatically puts out of business in Luzerne County over 80 retail automobile dealers, and it soon loses employment of their 1,000 employees. We are at war and know it, but temporary relief and easing a situation would be reasonable and possible you permit dealers to legitimately sell present stocks of cars now on hand, and Government has built for themselves January, and any other necessary factory production to buy from factories. Ration or sell as you please, dealers could liquidate new, then used, cars, and then try to maintain themselves on service as long as it could last, but gradually to eliminate enormous losses involved. Otherwise please weigh situation with extreme caution before final decisions.

WYOMING VALLEY AUTOMOBILE
DEALERS ASSOCIATION,
EDWARD K. CONRAD, Secretary.

McKEESPORT, PA., January 3, 1942.

Hon. JAMES J. DAVIS,
Senate Office Building,

Washington, D. C.:

I will greatly appreciate your consideration as to the manner in which new passenger cars will be rationed. Would suggest that present delivered price at least be maintained, with a liberal ceiling on used cars, and new-car deliveries for Government use to be made at full retail price, through dealer.

GEORGE L. EDMUNDSON.

MEADVILLE, PA., January 3, 1942.

Hon. Senator JAMES J. DAVIS,

Washington, D. C.:

Recent order freezing stocks of new cars and trucks is justified because of serious rubber situation, but will produce disastrous results on practically all of the 44,000 dealers and their half million employees. Rationing of cars particularly will prolong sales completion and greatly increase dealers' expenses. Scarcity of rubber will reduce income from service departments because of lessened use of vehicles. These facts justify new-car ceilings if any at present or recent retail prices charged by individual dealers and very liberal used-car ceilings if any. Also important and fair that any units purchased or requisitioned by Government be bought at above prices with no discounts. Distribution should be made through dealers. Your wholehearted cooperation on the above is respectfully solicited by our entire sales and service organization.

YOST & LANG, INC.,
Dodge and Plymouth Distributors.

STUDY OF POST-WAR PROBLEMS

Mr. DAVIS. Mr. President, I wish to call attention to a joint resolution I introduced, Senate Joint Resolution 87, for the creation of a joint congressional bipartisan committee to study post-war problems. No action has yet been taken by the Senate on this matter, but unquestionably the time has come when some considered congressional action will be necessary.

I ask that a letter addressed to me by Mr. John R. Van de Water, general chairman of the Committee To Study the Organization of Peace, be included in the RECORD as a part of my remarks.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

COMMISSION TO STUDY THE
ORGANIZATION OF PEACE,
Chicago, Ill., January 3, 1942.

The Honorable JAMES J. DAVIS,
Senate Office Building,
Washington, D. C.

DEAR SIR: The people of the Midwest join with the administration in affirming that "we will not only defend ourselves to the utmost, but will make very certain that this form of treachery shall never endanger us again." We in the Midwest strongly feel the necessity for emphasizing this point.

I have recently written to you with relation to S. J. Res. 87, seeking the creation of a joint congressional bipartisan committee to study post-war problems. I am now writing to report an event which will accord with the aim you have in mind.

On the eve of our country's declaration of the existence of a state of war, the following resolution was unanimously adopted at Orchestra Hall, Chicago, in a large public meeting sponsored by 15 organizations which represent hundreds of thousands of midwesterners:

At this time, when thoughts are centered on the war, we recognize that it is almost impossible to plan for winning the peace.

We, as Americans experienced in the progress of justice, stability, and security through the democratic federation of States,

Aware of the economic interdependence of the peoples of the world,

Convinced of the impossibility of attaining a just and lasting peace under the anarchy which is inevitable in the absence of appropriate institutions of international government,

In order to promote international and national welfare, which we deem to be one,

Request the President and the Congress of the United States immediately to establish a commission to study the improvements in world organization necessary to provide security to nations and freedom to men, as stated in the sixth article of the Roosevelt-Churchill declaration of August 14, 1941.

Respectfully yours,

JOHN R. VAN DE WATER,
General Chairman.

COMMITTEE REPORT FILED DURING ADJOURNMENT

Under authority of the order of the 2d instant,

Mr. BROWN, from the Committee on Banking and Currency, to which was referred the bill (H. R. 5990) to further the national defense and security by checking speculative and excessive price rises, price dislocations, and inflationary tendencies, and for other purposes, reported it on January 2, 1942, after adjournment of the Senate, with an amendment and submitted a report (No. 931) thereon.

CULTIVATION OF GUAYULE—RECOMMIT- TAL OF BILL

Mr. DOWNEY. Mr. President, a few days ago I reported from the Committee on Military Affairs the bill (S. 2152) to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses. Since the hearings before the committee on the bill, some of the departments of the Government have made several suggestions as to proper amendments. In my opinion, the amendments should go to the committee for consideration, and I, therefore, ask unanimous consent that the bill be recommitted to the Committee on Military Affairs for further consideration.

The VICE PRESIDENT. Without objection, the bill will be recommended to the Committee on Military Affairs.

AMENDMENTS TO PRICE-CONTROL BILL

Mr. BANKHEAD submitted an amendment, and Mr. TAFT submitted several amendments intended to be proposed by them, respectively, to the bill (H. R. 5990) to further the national defense and security by checking speculative and excessive price rises, price dislocations, and inflationary tendencies, and for other purposes, which were severally ordered to lie on the table and to be printed.

CHRISTMAS GREETINGS FROM SENATOR WILEY

[Mr. WILEY asked and obtained leave to have printed in the RECORD remarks by him conveying Christmas greetings, broadcast over station WOL on Monday, December 29, 1941, which appear in the Appendix.]

LABOR-INDUSTRY CONFERENCE

[Mr. THOMAS of Utah asked and obtained leave to have printed in the RECORD a list of the members of the Labor-Industry Committee, together with the remarks and the letter of the President of the United States to the conference, which appear in the Appendix.]

NOMINATION OF EDWARD C. EICHER—NOTICE OF HEARING

Mr. McCARRAN. Mr. President, the Committee on the Judiciary has received the nomination of Edward C. Eicher, of Iowa, to be chief justice of the District Court of the United States for the District of Columbia, vice Hon. Alfred A. Wheat, retired.

As chairman of the subcommittee considering this nomination, and as required by rule 1 of the committee, I announce that Friday, January 16, at 10 a. m., has been set as the time for a public hearing on the nomination, in the Judiciary Committee room, at which all interested parties will be heard.

DECENTRALIZATION OF GOVERNMENT AGENCIES

Mr. WILEY. Mr. President, I ask to have printed in the RECORD a letter I have written to a number of Senators in relation to the decentralization plan which the President is at present apparently putting into operation.

I call attention to the fact that under the Department of Agriculture there are about 12 separate subheads. I think it would be very advantageous to locate the dairy section in the State of Wisconsin, which is the center of the dairy industry. I think it would be advantageous to transfer the wheat section, let us say, to some place in the wheat area, and so on down the list.

If such a suggestion were carried out, I think that we in Washington could put a stop to much of the overbuilding, and utilize much of the space which would be available in buildings such as that of the Department of Agriculture for taking care of the war efforts.

The VICE PRESIDENT. Is there objection to the request of the Senator from Wisconsin?

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

UNITED STATES SENATE,
COMMITTEE ON THE JUDICIARY,
January 2, 1942.

DEAR SENATOR: For some years now we have seen the danger of centralization—centralization of government and centralization of industry. Since the war broke in Europe we have seen the unhealthy tendency of centralizing defense orders in a few great organizations. You know the story. I need not go into details.

Recently I wrote the President of the United States a letter, as follows:

"MY DEAR MR. PRESIDENT: On Friday evening last you announced the transfer of more than 10,000 Federal workers in 12 Federal agencies from Washington to other cities in this Nation. In doing that you put into effect what many of us contended should have been done long ago, only we believe you have not gone far enough.

"We hope that step is but the beginning of decentralization of Government agencies. We believe there are many more agencies which should immediately be taken out of Washington; so doing will make government more efficient.

"What is, more, such a move will stop in some measure the tremendous Government building program in the District of Columbia, with resulting bottlenecks and inefficiency. Taking additional agencies out of Washington will make available space which is much needed here to add efficiency to the war effort.

"What is more important, Government, in taking this step, will put into other cities and other communities Government pay rolls which are sadly needed there in this war period. As you know, Mr. President, there are communities that have been sadly depleted by Government because of the centralization of defense activities in other areas.

"There is a great demand in this country for a pruning of all Government activities and agencies which are not necessary for defense. The Agriculture Department, the Interior Department, and others have "mushroomed" under your administration during the past years. Here in Congress we know that when a man heads up any department in government he seems to have but one purpose, and that is to make his department bigger and more expensive to operate. As a result, bureaucracy has run rampant, efficiency is forgotten, and the obligation to the taxpayer is overlooked.

"Think of it—this year the overhead of the Department of Agriculture is over a billion dollars—more than the total cost of Government some years back. I call to your attention that in 1932 there was a pledge to abolish useless commissions and bureaus and to save not less than 25 percent in the cost of Federal Government.

"Just as common sense dictated your move in relation to these 12 agencies, so conscience and common sense should dictate further decentralization of Government and defense agencies, and pruning of personnel in those departments which are not especially connected with the war effort.

"With compliments of the season, I remain,
"Respectfully yours,

"ALEXANDER WILEY."

This letter, I hope, expresses your view.

Would it not be wise to organize a bloc of Senators to bring about more decentralization in Government agencies and in war orders—decentralization based on study and on common sense?

If, as we all believe will be the case, this Nation will have to devote 50 percent of its effort for war, it is imperative that the cities of the West and Middle West be given war orders. I say it is imperative because that

section must live. The first line of defense in any war is the morale of its people. Its morale depends upon many factors, but the primary factor is the ability of the people to live. They must have earnings. They must have work. Yes; back of the soldiers in the front line is the home front. Putting pay rolls of Government employees—resulting from decentralization—back into the Middle West would be a healthy economic move.

We of the Middle West must protect our own. Just look at the way Government money has been spent in certain States. The result has been to draw skilled labor from the Middle West into centers of the East. The result has also been to make certain sections of our country overpopulated, producing inflated values, congestion, and depopulating other sections and reducing values there. These States where production is centered are the ones which would be first attacked by an enemy. The campaign in Russia ought to teach us something. We can learn a few lessons from Hitler—he has decentralized his war production.

There has been some complaint because the President has moved some agencies. Of course, moving the same would inconvenience someone, but we are, in the name of defense, taking millions of men for our Army and destroying thousands of small businesses.

The President's action so far in transferring one agency to Richmond and another to Philadelphia isn't much decentralization. It is still maintaining everything in the East.

Let's get back of this move and see if we cannot get bigger results. The cities of the Middle West have vacant buildings immediately available to meet the situation. I know Milwaukee and other cities in my State will welcome joyously such action.

We in Congress should see to it that decentralization takes place and not put any impediments in the way.

We have now a "decentralization committee," composed of big men, big enough to see what is involved—the meaning of this move to our beloved country, its security—economic and political. Let's get back of it.

Respectfully,
ALEXANDER WILEY.

Mr. LEE. Mr. President, I am not in favor of decentralizing the Federal Government, scattering Federal agencies all over the United States, but it seems that is to be done; and since it is to be done, I believe these agencies should be located in places where there is some reason or logic for locating them. Therefore I am about to introduce a bill which will require the location of the Indian Bureau in the State of Oklahoma, where there live 27.6 percent of the Indians of the United States. We have in our State almost one-third of the Indians of the United States. The next highest in percentage is Arizona, where there are 14.2 percent. Next is New Mexico, where there are 10.4 percent. Then comes South Dakota, with 8.1 percent; California, with 6.6 percent; then the others in decreasing percentages. If we are to distribute the Federal agencies, they should be distributed with due regard to the agency and the type of people it serves. Therefore I am about to introduce a bill and to ask that it be properly referred.

The VICE PRESIDENT. The second session of the Seventy-seventh Congress has just met, and under the customary practice bills are not received until after the President has delivered his annual message to Congress.

Mr. LEE. In that case, Mr. President, I shall withhold the introduction of the

bill but will let my remarks stand as of today.

SEPARATE DEPARTMENT OF AVIATION

Mr. McCARRAN obtained the floor.

Mr. McNARY. Mr. President, may I inquire whether the Senate has concluded the routine morning business?

The VICE PRESIDENT. The routine morning business, under the custom of the Senate, is not in order on the first day of the session of a Congress.

Mr. McCARRAN. Mr. President, it is with a deep sense of responsibility, even of reluctance, that I address the Senate this afternoon on a subject which is of the utmost importance. The United States is at war. We are all familiar with the immediate circumstances which brought forth on December 8, 1941, a declaration of war against the Empire of Japan. No one can view the events preceding that declaration without experiencing a keen sense of anxiety because of what took place at Pearl Harbor, and wondering why we were not better prepared to cope with the enemy. The Secretary of the Navy, Mr. Knox, returned from Hawaii, following a hurried investigation. He submitted his report to the President. We, of course, do not know the exact contents of that report, but we do know, Mr. President, that a horrible thing was done to the armed forces of the United States on that fateful December 7. We do know that as a direct consequence of the report submitted by Secretary Knox, the commander of the Pacific Fleet, the commander of the Hawaiian division of the Army, and the commander of the Army air force have been relieved of their assignments. I think we can therefore make the reasonable assumption that the situation was serious enough to warrant such drastic action.

My purpose in taking the floor this afternoon is not to criticize, but rather to express caution, lest the Senate proceed to a hasty conclusion. Do not lose sight of the forest, Mr. President, because of a few trees that may be a little more conspicuous. With this idea in mind, I might with propriety call attention to a bill which I introduced some months ago, which is now pending before the Committee on Military Affairs.

Senate bill 1635 would create a department of aviation. For many years I have been deeply concerned with the development of aviation in the United States, both civil and military, because I believe that in the years to come the nation which controls the air will control the world. I think we can all agree that events of the past 3 years unquestionably support that belief. Supremacy in the air for the United States is an indispensable essential to the continued existence of this democracy.

My bill has been the subject of much discussion. It has been advocated and criticized by high-ranking officers of the armed forces. I welcome a free and open discussion of the merits of the proposed legislation, because it is through such processes that America expresses the will of the people.

In that connection, there recently appeared in a much publicized weekly magazine an article written by Rear Admiral

Harry E. Yarnell, now a retired officer of the United States Navy, in which he undertook to show, first, that the British R. A. F. has failed; and second, that this failure is due to the fact that the R. A. F. operates as a unit independent of the other armed forces.

In my opinion, Mr. President, Admiral Yarnell's article is a veiled attempt to refute arguments advanced by me and by other proponents of Senate bill 1635, by presenting a wholly one-sided picture of isolated instances in which the R. A. F. has not, perchance, measured up to the highest expectations. I do not question the propriety of Admiral Yarnell, or any other officer of the armed forces presenting his views on this vital question. As I have said, I welcome a free and open discussion on the merits of my bill. But I am unwilling to have this proposed legislation considered on the basis of prejudiced magazine articles, which are written by those in authority with the hope that Congress may never proceed to a consideration of this all-important question.

I may say here, Mr. President, that the always gracious and cooperative chairman of the Committee on Military Affairs, the Senator from North Carolina [Mr. REYNOLDS] has assured me that his committee will hold hearings on my bill in the near future, and that this matter will be thoroughly gone into. Yet, inasmuch as there has already been an organized propaganda drive to prejudice any legislation looking to the establishment of complete autonomy in the air, I wish to call attention to a few very pertinent facts.

For instance, I have heard it said that the only reason why Germany succeeded in invading Norway is that the British R. A. F. pilots could not recognize a German vessel when they saw one. Opponents of a separate air force have written in the press of the Nation that if the British pilots had also been naval men, they would have known these were German vessels, and the invasion might have been thwarted before it got under way. That may be true, Mr. President, and yet I cannot overlook the fact that the great British Navy was actively patrolling the same waters night and day, and that all the naval training which its officers and men had received could not save the situation.

I have also heard it said that Germany succeeded in invading Crete because the British R. A. F. was based some 300 miles distant at Mersa Matruh, in Egypt; that it did not respond to the request of the British Navy for assistance, because it was under a separate command.

These statements, Mr. President—and I regret that they have been given much credence as arguments against a separate air force—overlook the plain and fundamental fact that both Norway and Crete were invaded by an independent air force, under a separate command, in the hands of Germany. Moreover, such statements fail to disclose the very important fact that the attempted British counterinvasion of Norway was a complete failure, notwithstanding the fact that the British landed troops in large

force, who were welcomed with open arms by the Norwegians solely because the invading forces were unmercifully bombed from the air by an autonomous air force of Germany.

Price Minister Churchill explains the British failure as due to—

Intense, continuing bombings of the bases at Namsos and Aadalnes, which prevented the landing of large reinforcements and even of artillery for the infantry already landed. It was necessary therefore to withdraw the troops or to leave them to be destroyed by overwhelming forces.

The German Navy did not defeat Britain's counterinvasion of Norway, nor were German land forces responsible for Britain's failure. Britain was defeated in Norway by the Luftwaffe under a separate command of the German high command. Not only that, but the detachment in operation was relatively small, operating from bases some 300 miles distant from the point of attack.

When Germany invaded the island of Crete there were only 10 serviceable British planes on that island. However, the R. A. F. cannot be held to account for a shortage of planes, because the British Navy, which was in command at that point, believed it had sufficient air power until after the attack began.

But assuming that Britain's defeat at Crete was due to a lack of air power, and even assuming that the R. A. F. was absolutely responsible for this failure, we cannot and must not overlook the fact that Crete was invaded by an independent air force, the Luftwaffe, under a separate command, and that the Germans succeeded in landing some 35,000 men. Those men were sustained by vertical supply lines, a remarkable demonstration of the striking power of an independent air force. Yes; there may be those who believe that Crete was conquered because the R. A. F. was stationed at a distance, but I venture to say that the blame may well rest with the British Navy because it did not foresee an invasion by air. No matter whom we may blame, Mr. President, we are still confronted in the last analysis with the indisputable fact that supremacy in the air was achieved by a separate air force with which the British Navy had not reckoned.

Opponents of my bill have used the incident at Crete as proof that the Navy and the Army must not be deprived of air support when entering into an engagement. Manifestly that statement is true, and I wholeheartedly agree that neither the Army nor the Navy should be bereft of air support. But this argument can have no relation to my bill, because section 7 provides:

SEC. 7. The air force shall be so trained as to comprise a combatant force of the United States with a view to operating either with the armed land or sea forces of the United States, or with both combined or independently of either, as the President may determine. The President is authorized to attach such units of the air force as may be necessary for cooperation with the armed land and sea forces of the United States in time of war or threatened hostilities, and during maneuvers, target practice, and such other exercises as may be held by those forces. When such units are so attached, they shall



STRATEGIC AND CRITICAL MATERIALS [GUAYULE RUBBER]

HEARING BEFORE THE COMMITTEE ON MILITARY AFFAIRS UNITED STATES SENATE SEVENTY-SEVENTH CONGRESS

SECOND SESSION

ON

S. 2152

A BILL TO PROVIDE FOR THE PLANTING OF 45,000 ACRES
OF GUAYULE IN ORDER TO MAKE AVAILABLE A
DOMESTIC SOURCE OF CRUDE RUBBER FOR
EMERGENCY AND DEFENSE USES

PART 2

JANUARY 6, 1942

Printed for the use of the Committee on Military Affairs



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STRATEGIC AND CRITICAL MATERIALS (GUAYULE RUBBER)

TUESDAY, JANUARY 6, 1942

UNITED STATES SENATE,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10 a. m., pursuant to call, in the committee room, the Capitol, Senator Robert R. Reynolds (chairman) presiding.

Present: Senators Reynolds (chairman), Schwartz, Hill, Downey, Truman, Wallgren, Kilgore, Austin, Gurney, and Holman.

The CHAIRMAN. The committee will come to order.

Gentlemen, we have under consideration this morning S. 2152, a bill introduced by Mr. Downey, which was reported out by this committee and, on the floor of the Senate, met with some question from Senator Lucas, of Illinois, and others. It was recommitted to this committee, and the Chair will be glad to hear from Senator Downey.

Senator DOWNEY. Mr. Chairman, as you have stated, the bill was favorably reported by the committee. After it had been reported out, the Department of Agriculture suggested several changes that its representatives thought should be made in the bill, and also the Comptroller's office desired to make a certain changes in order that the accounting principles of the bill might conform to practice.

In view of the fact that there were several suggested changes, after consultation, we thought it was best to have the bill resubmitted to the committee and to report out a bill in the nature of a substitute, incorporating the suggested amendments. Mr. Paul Appelby, the Under Secretary of Agriculture, is here and has had that matter in charge at the Department of Agriculture. I have likewise asked Mr. Wood, the legislative counsel of the Senate, to take up the changes proposed by the Department of Agriculture and by the Comptroller's office, and to read back the new bill for us, and I think perhaps we might hear from Mr. Wood first, in reference to what changes have been made to conform with the recommendations of the Department of Agriculture and of the Comptroller's office.

STATEMENT OF HENRY G. WOOD, LEGISLATIVE COUNSEL OF THE SENATE

Mr. Wood. I think everyone has a copy of the committee's bill, which incorporates the changes suggested by the Department of Agriculture and by the Comptroller General and shows the conflicts.

Generally speaking, it extends to other rubber-bearing plants than guayule, the benefits of this program, and it increases the acreage of

guayule to 75,000 instead of 45,000, which the original bill called for.

The Comptroller suggests changes with respect to the accounting provisions and reporting provisions which were in the bill.

Just two subsections have been stricken out, and a substitute for one other subsection has been incorporated in section 2 of the bill.

Senator AUSTIN. May I ask a question?

The CHAIRMAN. Certainly, Senator.

Senator AUSTIN. We have before us the committee print of January 6, 1942, and the question I want to ask is, Does this bill, beginning with page 5, line 20, represent Senator Downey's present proposal?

Mr. WOOD. Yes, sir.

Senator AUSTIN. All right.

Mr. WOOD. That includes the suggestions, in that particular part of it.

The CHAIRMAN. Well, is it Senator Downey's suggested proposal, or the proposal of the Department of Agriculture, or what?

Senator DOWNEY. My proposal includes the recommendations of the Department of Agriculture and the Comptroller's office.

Mr. APPLEBY. Do you want me to explain our views to the committee?

The CHAIRMAN. If you please.

STATEMENT OF PAUL H. APPLEBY, UNDER SECRETARY OF AGRICULTURE

Mr. APPLEBY. The changes that were suggested are of minor nature, growing first out of the fact that available seed were found for somewhat greater acreage than was contemplated at the time Senator Downey originated the other draft. At that time, we asked for 45,000 acres, because we thought that was all the seed available, and now find that the supply of seed available makes it possible for the planting of something like 60,000 acres. While the amount is not precise, we thought a general authority for 75,000 acres would permit us to make use of whatever seed there is, and at the same time, while we thought we would extend the planting of guayule as much as possible during this general emergency, it might afford greater opportunity to go into the utilization of goldenrod in the manufacture of rubber.

Thomas Edison turned over to us, through his son Charles, several years ago, work they had done with goldenrod. At that time, the rubber content of the goldenrod leaves was about 3½ percent. We have developed varieties that have a rubber content as high as 13½ percent, and as we have developed that planting, it would give us a quantity of seed that will produce a substantial rubber resource in, say, 18 months, which is somewhat quicker than other things, and might be effective in getting a supply in our hands at an earlier date.

Senator AUSTIN. You are speaking of the seed of the goldenrod?

Mr. APPLEBY. Of these varieties that would have the highest rubber content. While it is a little speculative, because there are certain processes in the handling of rubber developed from the plant that have yet to be worked out, we thought it would be a great advantage to get into further production, or rather into real production, and carry on some seed planting of goldenrod as well as guayule, and those are really the points we had in mind.

I might comment about the recommendation of the Comptroller General and say that his recommendations are acceptable to us. We had felt that it was desirable to have a maximum of administrative freedom in carrying on these operations because of numerous factors involved, but we do think that his proposal is satisfactory.

The CHAIRMAN. Generally, I must confess, I am curious to know what sections of the continental United States are best for the production of goldenrod.

Mr. APPLEBY. It flourishes, as such, almost nationally.

Senator KILGORE. I think it is almost what might be termed a national growth.

The CHAIRMAN. We have a lot of it in North Carolina.

Senator HOLMAN. It is almost universally grown.

The CHAIRMAN. In what section does it grow most profusely?

Mr. APPLEBY. I do not know, sir.

Senator TRUMAN. Missouri, Senator.

Mr. APPLEBY. Just where we might find we could get the highest rubber content, I could not say, but I think our scientists would have some judgment, I think that our plantings this season would be so small, a few test plots, or a few nursery plots, to give us seed, that it would hardly be necessary to mention it, or to go into the question of location, as that would not be important. If the experiment were successful, we could go into larger acreage, say, several hundred thousand acres, and then there might be something that could be developed as to the appropriate locations for such planting.

Senator HOLMAN. Incidentally, goldenrod is provocative of hay fever, is it not?

Mr. APPLEBY. Yes, sir.

Senator AUSTIN. What limit of acreage do you recommend on line 1, page 8?

Mr. APPLEBY. 75,000 acres, for this reason, that we could not plant any more than that.

Senator GURNEY. Of guayule rubber?

Mr. APPLEBY. And for goldenrod.

Senator GURNEY. Then your page 8, line 1, has to do with "plants other than guayule"?

Mr. APPLEBY. Other than guayule, we would say something like 15,000 acres would be a fair maximum now, because it would be wholly for the purpose of getting seed.

I would like to say to the committee that if this thing proves out, this season, as we expect it to, if the need for rubber continues to grow, as it may, we might quite naturally at a later date come before the committee and ask for authority to plant up to, say, 400,000 acres. We could not do it this year, so we are only asking for the authority we need to proceed with what we have in hand.

Senator AUSTIN. May I ask a question?

The CHAIRMAN. Certainly, Senator.

Senator AUSTIN. What would be your objective, from an agricultural point of view, if this legislation is passed?

Mr. APPLEBY. Well, in all probability, we will plant about 70,000 acres, including some goldenrod; we will plant roughly 60,000 acres of guayule, and that is a maximum of what we can do, with some goldenrod, and then next year, from those plantings, we could have enough seed, if it were found desirable, to plant three hundred or

three hundred and fifty thousand acres, and in 2 years thereafter we could get half a ton of rubber to the acre.

Senator AUSTIN. What I am really interested most in finding out is if you are going to experiment with it this year, or if you intend to get into the quantity production of seed.

Mr. APPLEBY. Well, we would do a little experimenting, although a great deal of guayule is already used commercially and there would not have to be any extensive experimentation along that line, but you may be sure that it would be a good use of public money.

Senator DOWNEY. Mr. Chairman, while Mr. Appleby is here, I would like to call to his attention, and to the attention of the committee, the fact that in my opinion the rubber crisis is far more desperate and dangerous than the reports of any of the departments of the Government up to this date have shown, and for several reasons, one of which I would like to suggest to Mr. Appleby.

The reports gotten out by the different departments of the Government assume that 100 percent of the crude rubber that would be available over the next 2 or 3 years, and that is now available, will be subject to reclamation in the United States, and I think the O. P. M., up to noon, Saturday, carried that very dangerous fallacy in mind, but as a matter of fact I am now informed that the military authorities, themselves, anticipate that far more than half of our new crude rubber will be used for military purposes abroad. How a governmental department can possibly expect to reclaim rubber worn out in the Libyan Desert, blown to pieces in Russia and China, and in Manila, or Hong Kong—how that would be subject to reclamation, I cannot see. I suggest to Mr. Appleby that the departments of the Government, up to the present, have been carrying those figures, based on 100 percent reclamation, and if you once segregate the amount of this crude rubber that will be shipped out of the United States, the figures will be subject to a reduction on the reclamation.

In my opinion, we are going to be under handicaps that may mean even the commandeering of the tires right off of our automobiles.

I think it is a very dangerous situation.

Mr. APPLEBY. I do not know whether I could, as yet, quite agree with those conclusions, but I do think that our estimates of reclaimed rubber were predicated on the idea that the rubber would be here and available.

I talked to Jesse Jones on the matter this morning and he is having a Government-wide meeting about it on Thursday, I think, and will get the Government departments more up to date. We do know that the total uses of rubber by the Army and Navy are growing all the time and it is very hard to plan with any certainty what the need will be in the future, so I would say that an additional available supply would be necessary, most certainly.

Senator KILGORE. May I ask a question, right here, Mr. Chairman?

The CHAIRMAN. Certainly, Senator Kilgore.

Senator KILGORE. I do not know whether you have figures on this or not, but there were a number of English rubber plantations started about 22 years ago in southern Mexico. Have those possibilities been investigated?

Mr. APPLEBY. I think, so, sir.

Senator KILGORE. I have not been able to get any information, official information, on that, but I do know that there are many trees

there that have never been tapped. There are no roads in there or anything else, but over 500,000 bearing trees are there that could be tapped tomorrow.

Mr. APPLEBY. We have an estimate of the availability of supplies not now utilized.

Senator KILGORE. Do you know what State they are in?

Mr. APPLEBY. No, but we had an estimate made of the resources in connection with our work in planting down there, and we estimate that from Central America and South America we can get up to 70,000 tons of rubber, if we utilize everything that is there.

That would involve not merely bidding for it, but probably financing facilities for obtaining those supplies, because quite a bit of it is in locations where it is difficult to bring it to market, and any adequate rubber plan will include the management of everything, covering every possibility.

Senator DOWNEY. May I intervene, to say, Senator Kilgore, that I believe I am acquainted, through examination of those figures, with the plantations mentioned, and that that rubber would cost us at least \$1.25 a pound.

Senator KILGORE. Not this that I am talking about. A man from my home State, who was teaching in the University of Mexico about two years ago, during his vacation was in this territory, and these plantations were started in that territory and subsequently slumped because of the slump in rubber and part of the land was converted into coffee growing.

It has water transportation right from the trees clear into the United States.

Senator DOWNEY. I am quite sure I have a complete report on that.

Senator KILGORE. All you would have to do is tap the trees.

This gentleman sent the information to the Office of Emergency Management and sent a complete survey with all the information from the Governor of the State down there, and from the various owners of the rubber trees and from the University of Mexico, and I probably will have copies of the information in a couple of days. I may say, further, that he has not interest in the matter at all, just ran into the situation, and when this rubber question came up he was interested because this was a potential supply of 3,000,000 pounds, annually, at the very minimum, and should be looked into thoroughly.

Mr. APPLEBY. I would be glad, Senator, if you would send a copy of such information and papers as you have, to be checked with our record and see if they cannot be made to agree.

Senator DOWNEY. I am quite sure the matter has been investigated and I understand that Central and South America can only produce 1,000 to 1,500 tons.

Senator KILGORE. Well, 1,500 tons is a whole lot of rubber.

Senator DOWNEY. And from my information I think it would cost about \$1.25 a pound.

I might also say, in relation to Mr. Appleby's suggestion, that we might get as much as forty or fifty or sixty thousand tons out of Latin America. Well, if Latin America is willing to give us all of the rubber than can be scraped out of their countries, they would also have to give us their hot water bottles and rubber tires and rubber heels and everything else, but I think this situation of friendly relations with Latin America would cause quite the contrary effect be-

cause out of this demand on our part from Mexico and other South American and Central American countries, we would have to return certain goods of ours, so that instead of having any net benefit out of that, what will actually happen is it will be a draw upon our stock pile.

Mr. APPLEBY. That is not in our figures for additional rubber, but on the other hand I am sure that there is something in your point. It is certainly true with respect to tin, that if we are going to feed the British soldiers, if we are going to feed our own soldiers, we will have to keep on going, and if we are going to do our duty by Latin America, we would of course have to return a certain amount of that rubber down there.

Senator DOWNEY. I could not conceive of Argentina and Brazil and the other countries in South and Central America allowing every scrap, every pound of rubber to come up here to our manufacturing plants without making a corresponding demand for our manufactured products for their use, if we are going to maintain our friendly relations with them; and if we get their rubber for our hot-water bottles and tires and shoes, and if they cannot in turn get them for themselves, then the repercussions are not going to be very happy.

That is all predicated upon the assumption that Japan is going to continue to dominate Asiatic waters, and that is the situation we have to assume.

Mr. APPLEBY. Does it serve your purpose if I say that I know this bill is entirely adequate, as outlined, and acceptable to us, and we think it is very much needed?

The CHAIRMAN. Thank you very much, Mr. Appleby.

Senator DOWNEY. Before you go, Mr. Appleby, I believe Colonel Watt desires to say something.

Colonel WATT. In connection with section 2, authorizing appointments without regard to the provisions of the civil-service laws, I just want to read a general statement made by the President of the United States Civil Service. Speaking generally on such legislation, he says that the Commission feels that in the interest of efficiency and good administration any exemption of personnel from the proper requirements of the civil-service laws should be omitted. That is especially true in the present emergency. As you know, of course, the Civil Service Act contains provisions permitting the President, at any time, by Executive order, to make any necessary exemptions from open competition, and if Congress should pass any legislation creating new agencies, or extending the activities of old agencies, and place the positions under the Civil Service Act, the President would be empowered by specific provisions in the Civil Service Act to exempt from competition any position which he believes should not be filled through competition. He went on and said that the Civil Service Act and rules contain ample provisions to meet all possible contingencies in the emergency through permanent appointments without open competition, as well as temporary appointments, so that there need be no delay in providing personnel.

Mr. APPLEBY. I would like to comment that I agree with that letter, except for one thing, and it is not addressed to that:

The Civil Service Commission, itself, and the President would not have power to exempt us from the limitation as to hiring aliens.

I am sure the Civil Service Act would permit us to hire such experts as are necessary in the emergency, that need be hired, such as men in the rubber business, commercial rubber business, and things of that type, and they would not be on any civil-service register, but the thing that comes to the fore is the ability to hire these Mexicans for labor, and that does bother us, and I might say that if you could change this so that we could give employment directly to citizens in this hemisphere of any country in which we might be engaged in these activities, if we were allowed to employ them without civil-service exemption, that would be satisfactory to us.

Senator AUSTIN. I do not agree with that. They are so far behind now that it takes months, in some cases, to just get a file.

There is probably here in Washington no agency that is so overburdened and understaffed as they are.

Now, I am not complaining about what they do, because what they do is well done and they are doing as well as they can with their equipment, but they are far, far from an efficient organization because they have too much to do—they are way behind.

Senator SCHWARTZ. They are getting more and more so, and they are hopelessly swamped.

Senator AUSTIN. Yes; and I got some proof in that regard. In connection with the Emergency Wage Board, there was an amendment I intended to offer to the Connally bill. That Board is not supposed to serve, save only in an emergency, and will apply only to those cases where the Government seizes a plant because of a strike.

Now, the number of them, those cases, will be very small, maybe nothing, and yet to come forward with a letter like that and want to put the appointees of these small functions under their jurisdiction—well, it just is unreasonable. The emergency would be all over before we could get them to act on it.

Senator TRUMAN. The war would be either won or lost, and the Japs would be disposed of before we could get rubber, which would perhaps be in about 1962, if we left it to them, and I think we had better go ahead and leave it like it is.

Mr. APPLEBY. That is up to you gentlemen.

Senator HOLMAN. May I make a comment, Mr. Chairman?

The CHAIRMAN. Certainly.

Senator HOLMAN. I have come to the conclusion that the method, or the means by which information has been acquired is important, as important as acquiring the information, and this idea that you can find competent men in industry and technical pursuits—I had rather say practical men—through a written examination, I think is a fallacy and a thing which has been proven as a fallacy time and time again and I think that is one of the reasons for the excessive cost of administration of government over commercial operations.

The CHAIRMAN. Senator Downey, have you another witness?

Senator DOWNEY. No; except if the committee desires to question any further on the bill, these gentlemen would be glad to answer the questions.

The CHAIRMAN. Senator Hill, this is a bill that has been agreed to, heretofore, and was introduced by Senator Downey. Suggestions have been made by the Agriculture Department and the Budget Bureau, and beginning on page 5 is the substitute bill.

Now, Mr. Wood, do you want to make some explanation of the changes?

STATEMENT OF HENRY G. WOOD—Resumed

Mr. WOOD. They incorporate the suggestions made by the Department of Agriculture, and also the Comptroller General's recommendations.

The CHAIRMAN. They have been incorporated?

Mr. WOOD. Yes, sir.

The CHAIRMAN. For the benefit of the committee, would you be good enough to state what those incorporations are?

Mr. WOOD. Well, one of the changes appears at page 5, at the bottom of the page. The amended bill includes the power "To acquire by purchase, license, or other agreement"—that was not in the original bill.

And it also covers "the right to operate under processes or patents, now held by the Intercontinental Rubber Co. or any of its subsidiaries, or by other companies or individuals," and in the original bill, activity was limited to patents relating to the planting of guayule, and that has been changed to "the growing and harvesting"—appearing at the top of page 6, in line 1.

Then, there is a change on page 6, line 6, from 45,000 acres to 75,000 acres, and the original limitation, or the limitation of the original bill, has been changed to include the Western Hemisphere, in this case. That appears in line 7, and also lines 18 and 19, and then the subsection beginning on page 7, line 21, is new:

To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule; except that the total acreage of all plantings of rubber-bearing plants other than guayule shall not exceed—

and it was suggested that 15,000 be the acreage to be inserted there.

Senator AUSTIN. Is that all right with you, Senator, that 15,000 figure?

Senator DOWNEY. Yes, indeed.

Mr. WOOD. Next is section 2 (a), beginning on page 8, line 3, which covers appointments made by those, or of those not having civil-service classifications and applies to these citizens in the Western Hemisphere countries.

I think that covers practically all of the suggestions made by the Department of Agriculture.

Now, the Comptroller General's office suggests that instead of the language in the original bill, which you see on page 3, in lined type, beginning on line 22:

The Secretary shall determine the character and necessity for the expenditures under this act and the manner in which they shall be incurred, allowed, and paid, without regard to the provisions of any other laws governing the expenditure of public funds, and such determinations shall be final and conclusive upon all other officers of the Government.

The Comptroller General's substitute, which appears on page 8, lines 12 to 17, which, in the opinion of the Comptroller, accomplishes the same thing, is as follows:

Notwithstanding the provisions of any other law governing the expenditure of public funds, the General Accounting Office shall not disallow credit for, nor

withhold funds because of, any expenditure which the Secretary shall determine to have been necessary to carry out the provisions of this act.

And then he also suggests eliminating the subsections which appear on page 4 of the print, beginning with line 4 and running through line 22.

His recommendation was that they be eliminated because it involved additional audits, additional accounting work for the General Accounting Office, and also set up a little different requirement as to how the funds should be obtained by the Secretary, from those appropriated.

So, those two provisions have been eliminated.

Now, the balance of the bill is the same as it was, originally, subsections (c), (d), (e), and so forth, appearing on pages 8 and 9, and the last section 3, which appears on page 9.

Senator AUSTIN. Those are the same?

Mr. WOOD. Yes, sir; and I think that covers all the points of difference.

The CHAIRMAN. Well, as there appear to be no further questions, the next thing is to pass upon the substitute.

Does any member of the committee desire to ask Mr. Wood any further questions, or does any member of the committee desire to ask Senator Downey any question?

(No response.)

The CHAIRMAN. If not, the Chair will entertain a motion in relation to the acceptance of the substitute.

It is the understanding of the Chair that the substitute, if accepted, will be reported on today's calendar, and it is the desire of Senator Downey and others interested that it be placed up for immediate action, which will be day after tomorrow.

Senator HILL. I move the bill be reported out favorably.

Senator GURNEY. I second that motion.

The CHAIRMAN. If there is no objection, it will be reported.

(No response.)

The CHAIRMAN. May I ask that Senator Downey report the matter as being passed unanimously and take the matter up for debate at the earliest possible moment?

Senator DOWNEY. That will be done, sir, and I hope that some of the committee here will be present to support me in this.

The CHAIRMAN. I am sure they will.

Senator DOWNEY. And I hope that Senator Austin will be there to speak on the question of civil service.

The CHAIRMAN. I know we will be glad to do what we can to further this matter because it is a matter that takes in the whole Western Hemisphere and that is something in which we all have an interest, as you know.

Senator DOWNEY. I think it is a matter that is becoming more and more important as time goes forward and I do not believe that we have as yet realized the full seriousness of the situation.

The CHAIRMAN. Now, gentlemen, we will take up these other bills.

(Whereupon, the committee passed on to the consideration of other matters.)



of 12-1-1

FILE COPY

GUAYULE RUBBER

PLEASE RETURN TO CARL R. SAPP,

Office of Budget and Finance

HEARING

BEFORE

THE COMMITTEE ON AGRICULTURE

HOUSE OF REPRESENTATIVES

SEVENTY-SEVENTH CONGRESS

SECOND SESSION

ON

H. R. 6299

TO PROVIDE FOR THE PLANTING OF SEVENTY-FIVE
THOUSAND ACRES OF GUAYULE OR OTHER RUBBER-
BEARING PLANTS IN ORDER TO MAKE AVAILABLE A
DOMESTIC SOURCE OF CRUDE RUBBER FOR
EMERGENCY AND DEFENSE USES

JANUARY 7, 8, AND 13, 1942

Serial F

Printed for the use of the Committee on Agriculture



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CONTENTS

Statement of—	Page
Hon. John Z. Anderson, Representative in Congress from the State of California.....	5, 47, 98
Hon. Paul H. Appleby, Under Secretary of Agriculture.....	1
Henry G. Atwater, vice president, Intercontinental Rubber Co., New York City.....	67
E. B. Babcock, chief chemist, Firestone Tire & Rubber Co., Akron, Ohio.....	103
C. L. Baker, president, Intercontinental Rubber Co., New York City..	60, 97
Dr. Elmer W. Brandes, in charge rubber investigations, Bureau of Plant Industry.....	5
John L. Collyer, president, B. F. Goodrich Co., Akron, Ohio (letter) ..	98
Harvey S. Firestone, Jr., Firestone Rubber Co., Akron, Ohio (telegram).....	55
Hon. Dow Harter, Representative in Congress from the State of Ohio..	100
Hon. Jesse H. Jones, Federal Loan Administrator (letter).....	111
P. W. Litchfield, chairman of the board, Goodyear Tire & Rubber Co., Akron, Ohio (letter) ..	98
W. H. Mason, General Tire & Rubber Co., Akron, Ohio.....	86
Navy Department (letter).....	51
Edward A. O'Neal, president, American Farm Bureau Federation (letter).....	113
W. O'Neil, president, General Tire & Rubber Co., Akron, Ohio (letter).....	52, 58
United States Tariff Commission (report).....	50



GUAYULE RUBBER

WEDNESDAY, JANUARY 7, 1942

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE.

Washington, D. C.

The committee met, pursuant to call, at 10 a. m., in the committee room, New House Office Building, Hon. Hampton P. Fulmer (chairman) presiding.

The CHAIRMAN. The committee will come to order. We have met this morning for the purpose of considering H. R. 6299, a bill introduced by our colleague, Mr. Anderson, of California. We have several people here from the Department, and Mr. Anderson wants to be heard.

We will be glad to hear from Mr. Appleby first this morning. I understand that you want to get back to the Department, Mr. Appleby.

STATEMENT OF HON. PAUL H. APPLEBY, UNDER SECRETARY OF AGRICULTURE

Mr. APPLEBY. Mr. Chairman, I am here to answer any questions rather than to make a statement.

The bill, a draft of which you have before you, represents the Department's views of what would be desirable legislation and there are perhaps one or two things in it that I might explain.

The change from the original proposal of moving up from 45,000 acres to 75,000 acres is based upon the fact that we have found since the original draft was prepared, that the availability of seed is such that we can plant a somewhat larger acreage and because of the general rubber situation we think that we ought to be prepared to go as far in subsequent years as the need then may dictate, and we propose also that the authority be made to cover other plants than the guayule, simply because there are some other possibilities that we ought to be authorized to act with respect to.

There is one provision in here about employment that I would like to explain off the record.

(After informal discussion off the record.)

The CHAIRMAN. Is that provision in the bill now satisfactory?

Mr. HOPE. You are referring to section 2?

Mr. APPLEBY. Yes.

Mr. ANDERSON of California. Section 2 (a), at the bottom of page 3.

Mr. APPLEBY. Yes; that provision is satisfactory.

I may say, too, that the letter of the Comptroller General is satisfactory to us, so that there is no disagreement on that point.

The CHAIRMAN. I believe the amendment suggested by the Comptroller is included in this new bill.

Mr. APPLEBY. Yes; that is right.

I think that is all I would say, except in answer to questions, Mr. Chairman.

Mr. ANDRESEN. Mr. Appleby, about how much seed is available for the amount of acreage that we can plant?

Mr. APPLEBY. I think the amount of seed available would cover something like 57,000 acres. That is right, is it not, Dr. Brandes?

Dr. BRANDES. Fifty to fifty-seven thousand acres.

Mr. ANDRESEN. That is in addition to the acreage that is already under production?

Dr. BRANDES. Yes.

Mr. ANDRESEN. What amount would you suggest then in lieu of the 75,000 acres?

Mr. APPLEBY. We think the authority ought to be for 75,000 acres, partly because the amount of seed is a little bit indefinite, and we shall not know until we get into it, and partly to cover work that might be done with respect to goldenrod.

Mr. HOPE. What you want to do is to use up all of the available seed; be sure that you have authority to use up all available seed.

Mr. APPLEBY. That is right.

Mr. HOPE. Well, has the Department gone into this thing far enough that you are satisfied that this is a reliable, dependable source of rubber.

Mr. APPLEBY. Yes; I think there is no doubt about that. The only thing that would qualify that judgment would be the time factor and if there are other sources that can be developed somewhat more quickly, of course, we will want to shift efforts in that direction.

Mr. HOPE. This bill would give the authority to do that?

Mr. APPLEBY. The goldenrod, conceivably, might be developed somewhat faster than a large supply of the guayule and time is the only drawback here.

The rubber is all right, and it has already been used, and in the situation as it is we think it is a bet that the Government ought definitely to play.

Mr. POAGE. Mr. Appleby, it is contemplated by the Department that you will make tests of this planting over a rather wide area; that is, you have in mind, probably, making tests all of the way from Texas to California. Is that what you have in mind?

Mr. APPLEBY. Yes. Our plan is this: In the first place we know pretty well the areas in which this plant will grow, but to get the best results the conditions have to be explored a little more precisely than we have been able to do it, and this year it would be planned to take some of the seedlings that now exist and plant them in perhaps 50 or 100 different places so that the following year, with the new seedlings that we will develop from the nurseries, we can plant in such parts of those places that we had best results in.

Mr. POAGE. Now, is it your idea that the Department itself will do the planting, or are you going to make cooperative agreements with farmers to plant them?

Mr. APPLEBY. It is our plan to have the Department itself do the planting.

Mr. POAGE. At experimental stations?

Mr. APPLEBY. No; we would lease land from farmers and carry this on as an industrial type of operation. For one thing, with the time factor as it is, that is dictated by the consideration that the farmers would attend to it variously according to their circumstances. If other things should seem to be more profitable after they got some plants in, why, they might not produce, and we want to make maximum use of every bit of seed.

Mr. POAGE. Is there going to be any opportunity under this program for private concerns to cooperate and help out on that? I ask that for this reason: I have a tire concern in Waco, Tex., headed at present by the mayor of the city. Away last spring he wrote me and told me that his company was ready to put \$25,000 in this type of thing, if the Government wanted to cooperate. At that time the Government did not want to cooperate. They did not feel that the thing was worth going into. Those people were willing to do that, and I am sure there are others over the country who are ready to put their own money into the thing in trying to advance it.

Of course, they are doing it with the idea of getting a supply of rubber.

Is there going to be any opportunity for those people to help out in this matter?

Mr. APPLEBY. I think each case would have to be decided on its merits, as to what cooperation there is and whether it would add to the sum total of the output.

Mr. PIERCE. Does it require good soil to grow?

Mr. APPLEBY. Well, it is found in Mexico and in Texas, south of El Paso, and it grows in general in the territory that would be described as California, Arizona, New Mexico, and Texas; but it does not grow everywhere in those States, by any means. It is a plant that can be grown only in a very restricted area.

Mr. PIERCE. Does it have to have a certain amount of rain?

Mr. APPLEBY. It has to have a certain amount of rain or irrigation; just before the time of planting, there must be very considerable moisture.

Mr. PIERCE. Is that the ordinary height, that plant [indicating]?

Mr. APPLEBY. Doctor, is that about typical of the plants?

Dr. BRANDES. The plant does grow larger than that; but that is an average specimen.

Mr. APPLEBY. And, that is how old, Doctor?

Dr. BRANDES. If it is a cultivated plant that may be only 3 years old.

Mr. PIERCE. When you harvest, you pull the entire plant up?

Mr. APPLEBY. Yes; you pull it all up.

If that is a wild plant, it might be much older than 3 years.

Mr. PIERCE. It has to be replanted from the seed?

Mr. ANDERSON. It has to be replanted from the seed.

Mr. PACE. Mr. Appleby, I have one question with regard to the Department undertaking the work.

It is, I presume, intended that that will be only during the experimental period, or is it the attitude of the Department now to take over this as a Government undertaking for all time?

Mr. APPLEBY. Well, for the duration of the emergency, our preference would be, and our recommendation would be that it be a govern-

mental operation, in order that there may not be built up private vested interests in this type of rubber source, because in ordinary times it would be uneconomical.

Mr. PACE. You are convinced now that regardless of the amount of planning it would not be economical?

Mr. APPLEBY. That is right.

Mr. PACE. And you are going into this merely as an emergency proposition?

Mr. APPLEBY. That is right.

Mr. POAGE. If that is true, do you mean that it is your thought that this is a source of rubber supply that will not be available to us for approximately 3 years at the minimum and then that if we are back in possession of the trade routes in the East Indies, that we will not use it?

Mr. APPLEBY. I think that it is much more likely that at the end of the emergency period we will be relying much more heavily on Central and South America for the type of rubber we have had in the past, at least for a much larger part, than we had before. We have been using guayule from Mexico all along in small amounts; I think some 5,000 tons of rubber, and there may be some hang-over of use of it as a source, and I am sure that we shall use more of rubber from this hemisphere permanently. I think that would be good public policy from a permanent standpoint, for the Government to maintain a nursery of guayule all of the time hereafter so that in the case of an emergency we could more quickly supply rubber from this source; but as a regular annual source, I think it would be too costly.

Mr. PACE. Could you state briefly what the Department is doing in the way of cooperation with the Central and South American countries in expanding their rubber production for our markets?

Mr. APPLEBY. Dr. Brandes has had charge of that, and, if you would like, he can cover that.

Mr. PACE. We will just reserve that question.

Mr. HOPE. While Mr. Appleby is still with us, I would like to ask this question: You stated that in normal times this would be an uneconomical way to produce rubber. You are not going into this thing, though, with the idea that the Department should not, by every means possible, attempt to lower the cost of production and produce this rubber at the very lowest cost?

Mr. APPLEBY. My feeling would be, and I feel that that is the Department's feeling, that if we find a way to produce rubber economically here, why, of course, that is good business and we should do it, and experimental work should be continued, to get the very best varieties that can be produced.

In the case of goldenrod, for example, when we took over the Edison experimental work at the time Edison turned it over to us, the rubber content of the goldenrod leaf was $3\frac{1}{2}$ percent. The Bureau of Plant Industry has now produced plants that average $13\frac{1}{2}$ percent rubber. In the same way it may be we can develop out of these various things rubber sources that will be economical and that we can rely on permanently, and in that case we should do it.

Mr. HOPE. That would be a part of the work that you would be doing to develop better strains and find ways of producing it?

Mr. APPLEBY. That is right.

Mr. ANDRESEN. Mr. Appleby, is there a medium for conducting experimental work with other plants and plant life that is not grown in this country?

Mr. APPLEBY. Yes; some. I think the Bureau knows pretty well about everything that is now known in the world, and we feel we are fully up to date on that; but it is a continuing job of finding new possibilities and making the most of them.

The CHAIRMAN. Thank you very much, Mr. Appleby.

We will now be very glad to hear Dr. Brandes.

STATEMENT OF HON. JOHN Z. ANDERSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. ANDERSON. Mr. Chairman, before these witnesses take the stand, I would like to make a statement.

The CHAIRMAN. All right Mr. Anderson.

Mr. ANDERSON. When I addressed the House of Representatives on April 16 with reference to this subject, I rather severely criticized the departments of the Government and also the Department of Agriculture because of the fact no steps had been taken to develop this project looking toward just such an emergency as we have at the present time.

I want to say in that regard, since that time, the Department of Agriculture has been most cooperative. They have helped me out a great deal in formulating the precise bill that you have before you at the present time, and I cannot speak too highly for the services that have been rendered by Mr. Appleby and Dr. Brandes, Chief of the Rubber Division, and I am sure that you gentlemen will be glad to hear whatever they have to say on this bill.

The CHAIRMAN. Dr. Brandes.

STATEMENTS OF DR. ELMER W. BRANDES, CHIEF, RUBBER DIVISION, DEPARTMENT OF AGRICULTURE; AND LOREN G. POLHAMUS, SENIOR AGRONOMIST, DEPARTMENT OF AGRICULTURE

Dr. BRANDES. Do I understand, Mr. Chairman, that you want a general statement on the potentialities of guayule rubber?

The CHAIRMAN. That is right.

Dr. BRANDES. In that case, I would like to present a rather inclusive statement which is already prepared, on the description of the plant and planting and cultivation of the plant, and also a financial statement on the considerations that may be involved in carrying out a program if authorized by this bill. I have a sufficient number of copies to pass them around. Would you care to have that done now?

The CHAIRMAN. Yes.

Dr. BRANDES. And I can then make reference to the points in the prepared statement.

Mr. ANDRESEN. May I suggest that this document be incorporated in the record and that the Doctor make a general statement to the committee covering the outline of the bill and what is expected that will be accomplished.

The CHAIRMAN. That is a very good suggestion and we will be very glad to have you just make a statement outlining the bill along the lines suggested by Mr. Andresen.

Mr. HOPE. As I understand it, what Mr. Andresen suggests is that Dr. Brandes tell just what they will do if we pass this bill.

Mr. ANDRESEN. That is right.

The CHAIRMAN. And we would like to have some information about just what has been done that would indicate that this is a meritorious proposition. I imagine that some of your people have gone into the question and tested out the plants from various angles and have found that there is every indication that there is a possibility of getting results.

Dr. BRANDES. Yes, sir.

The CHAIRMAN. Very well, you may proceed.

(The statement above referred to is as follows:)

CULTIVATION OF IMPROVED DOMESTICATED GUAYULE AS AN EMERGENCY SOURCE OF RUBBER

By E. W. Brandes, Head Pathologist in Charge, Loren G. Polhamus, Senior Agronomist, and O. D. Hargis, Formerly Agent, Rubber Investigations, Bureau of Plant Industry, United States Department of Agriculture

PART I. DESCRIPTION OF THE PLANT AND ITS CULTIVATION

GENERAL CONSIDERATION OF POSSIBILITIES AND LIMITATIONS

With the United States once more engulfed in war and disturbance of supply lines from the Orient a reality, the status of the desert shrub, guayule, as an emergency source of rubber is brought sharply to the fore. Accurate and impartial judgments of the relatively few individuals who have had some personal experience with the little-known plant or who can speak with authority on questions relating to it become currently important. For a consideration of a program of practical value it is necessary to know the limitations as well as the potentialities for increase of this rubber source. Recent newspaper and magazine publicity on guayule indicates the need for dispelling certain prevalent misconceptions regarding these potentialities. To avoid expensive lost motion, it is just as important to recognize the shortcomings as it is to recognize and capitalize on the real prospects. An effort is made here to present from authentic sources and personal observation and experience a factual and realistic statement of possibilities for emergency utilization of guayule, as a basis for consideration of programs of action.

Shortly after the turn of the century increasing demand for rubber stimulated the idea of increasing the exploitation of wild guayule by controlled regeneration of the supply of shrub, and this led to long years of sustained experimentation on cultivating the plant. Careful research¹ eventually resulted in the development of appropriate nursery and field practices. Ingenious labor-saving farm machinery was specially devised for these operations, and, with experience gained by practical use, was redesigned again and again, until now all procedures are completely mechanized. The plant itself has been improved, mainly in rubber percentage and disease resistance. From the thousands tested, strains have been selected that, on the basis of dry weight of shrub, yield 16 to 19 percent rubber at normal harvest age. Several high-yielding strains have been found resistant to damping off, a complex fungus disease serious in the irrigated nurseries, but certain disease problems in the areas where summer rains are prevalent remain unsolved. Together with test-planting studies in different parts of southwestern United States leading to the discovery of certain areas like the Salinas Valley, reasonably well adopted to cultivated guayule, the cultivation of the shrub as a domesticated plant is far advanced.

Although at the present stage guayule rubber may not compete in cost with plantation Para rubber produced in the tropical areas especially suited to the latter, it does offer a definite recourse in times of emergency such as the present.

¹ Practically all of the plant research and the experimental designing and testing of farm machinery have been done by employees and the late president of the Intercontinental Rubber Co.

Among the prevalent misconceptions of guayule rubber possibilities are those relating to importation and resettlement of the plants in various parts of the United States where natural conditions are totally unsuited to the synthesis and accumulation of rubber in the plant, or even unsuited to the very survival of the plant. Assertions have been made that the plant can be successfully cultivated for rubber production in humid areas such as the Gulf States, or in the Midwest up to the Canadian border. No doubt, such statements are based on some scanty evidence such as comparisons of minimum temperatures and the like, or are simply guesses or hearsay. They are not based on valid, theoretical considerations, and certainly not on responsible experience.

Suggestions have been made that guayule seed be broadcast over areas in the semiarid southwestern part of the United States to create a reserve of wild guayule in the desert for future use. Even trained agriculturalists have been heard to regret that the public domain was not long ago seeded in that manner so that we would now enjoy an immense reservoir of wild-rubber shrub. These well-meant reflections find their way into print, unfortunately, and, as they can only lead to disappointment, a clear statement pointing out the fallacy of the idea is appropriate. Not even in its natural range, described in the next section, can guayule survive the aggressive competition of other desert plants except in narrowly circumscribed areas where local conditions of soil, topography, and climate are peculiarly favorable for guayule or unfavorable for its competitors. Such limited areas are not likely to be found by shotgun methods of seeding, if they exist at all, outside the natural range of guayule. It may not be out of place to point out here the great distinction between chance of survival of introduced plants under natural conditions and under the artificial, pampered conditions of cultivation. It has been amply demonstrated that guayule can be cultivated outside its natural range provided that certain basic requirements are met.

It may be anticipated that advocates of guayule cultivation, or of seed broadcasting, in the parts of the United States where prospects appear to us quite unfavorable will not fail to mention the possibility of adaptation of the plant to such localities by breeding. There are no indigenous close relatives of guayule, with which it may be crossed, north of the latitude of Fort Stockton, Tex., and therefore any intensification of the quality of cold resistance by breeding is impossible. It is safe to say that no appreciable extension of the range northward is practicable except where temperature-moderating influences are found, and in places where temperature is not the limiting factor the northward extension is not likely to be great.

GUAYULE IN ITS NATIVE HABITAT

The desert shrub guayule, *Parthenium argentatum*, is restricted to a natural range comprising discontinuous, widely spaced restricted areas, in which isolated plant communities, including guayule or rarely pure stands of the shrub, are found in the dry tableland of north-central Mexico and adjacent Texas. The range is included approximately within latitudes 25° to 31° and longitudes 102° to 105° W. Politically the range is western Coahuila and eastern Chihuahua and the southeastern part of the Trans-Pecos area of Texas. Due to irregularities at the periphery, the range extends into other States of Mexico. Roughly, this is an area of about 20,000 square miles. Plateaus, three to five thousand feet above the sea, with more or less mountainous ridges and lowland basins, constitute the surface features of the range. Rainfall is deficient, only 9 to 15 inches annually being recorded for most of the region. The rainfall is seasonal and not well distributed. The natural vegetation is characteristic of arid and semiarid regions, a scattered growth of sotol, yucca, cacti, and lechuguilla being found in some places, salt or alkali indicating plants in others. Wide temperature fluctuation is characteristic, with very hot days and cool nights in summer and, in the northern part, occasional drops to near-zero temperatures in winter. The soils differ greatly in physical features, ranging from coarse stony to fine colloidal particles, and they differ as well in elemental characteristics. In this large area of 20,000 square miles, guayule is found sparsely, both in the sense of discontinuity of stands and density of stands, in the few places where it grows. It is possible to travel for 20 or 30 miles in the area and not see a single guayule shrub. The largest natural stand of guayule ever seen by the writer was a thinly spaced one, mixed with a dozen other species of desert plants, occupying the crest of a narrow limestone ridge about 12 miles long in the "Big Bend"

country of Texas. Pure stands of guayule are very rare indeed and are limited in extent. The plant is never found on the flat lands but always on the crests or slopes of stony ridges or reefs, occasionally extending finger-like for a short distance along the "draws" or shallow drains outward from the base of ridges occupied by the shrub. Obviously, in its natural state, guayule is restricted to environments peculiarly suited to it, or unsuited to the plants with which it must compete in the struggle for existence. The old cowboys say that pure stands of guayule are found only on "rotten land," the leached and tunneled limestone rock with very little soil, and in general this is true, but pure stands may be found on solid, stratified limestone.

Guayule is a slow-growing, long-lived plant that may attain an age of 40 or 50 years. The plant is a stubby, widely branching woody shrub, seldom more than 30 inches tall, with small, greenish-gray or silvery leaves imparting to the whole plant a dusty appearance. The leaves are usually somewhat elongated, with margins irregularly toothed. When in flower, the numerous stiff, slender flower stalks with small, inconspicuous star-shaped flowers project upward 4 to 6 inches above the general level of the compact and somewhat globose mass of foliage. Because of these characteristics, it is easy to distinguish the plant from other gray shrubs on the range, even from its close relative mariola, but it is well to use good field glasses to identify guayule at distances greater than 75 to 100 yards. How the indigenes of North America discovered that the plant contained the useful elastic substance that later brought it into prominence is an unsolved mystery. It requires persistent, dry chewing of a slice of the stem for 20 minutes, meantime rolling it with the tongue and spitting out the splintered frass, before there is the first hint that a homogeneous material is being separated. With additional chewing and constant ejection of bits of wood and bark, the material is reduced to a mixture of rubber and resin, in proportions of 80 to 20 percent. No detersinating is possible with nature's primitive mill, the teeth, tongue, and maceration juices. We can attest that the stuff is unpalatable but, on the other hand, it is not nauseating, and the mastication of guayule has a cleansing and freshening effect on the mouth. Perhaps the nibbling and ruminating by jackrabbits, which occasionally browse on guayule, first suggested a trial of chewing to the early Americans, who used the rubber for bouncing balls in their games. Unlike the Para rubber tree, in which the rubber is found in emulsified milky latex, rubber is stored in the cells of the desert shrub in a much more concentrated form.

In the environment described above, seed production is prolific in late spring and summer if stimulated by adequate moisture, but the evidence points out that years may pass with little or no seed production in local areas. Even with abundant seed development and distribution by the occasional dashing rains or wind, very few seedlings survive because of competition with the mother plants or because the seeds lodge and germinate in nearly unfavorable environments or where the environment favors competing desert species. In the rocky places of limited extent where pure stands of guayule are found, there is especially keen competition with the mother plants for the available moisture. If one digs up the laminated slabs of limestone rock, stringy lateral roots of the shrub are uncovered, extending from the twisted taproot for long distances between the slabs, occupying every crevice. This long-range foraging for water by the roots means that the old, established plants are facilitated to maintain themselves against the seedlings in the immediate vicinity and the latter die unless fortunate enough to take root where an old plant has completed its life cycle. Some of the seeds remain dormant for years and germinate sporadically, others germinate promptly. Great numbers of tiny seedlings, from current or preceding seed crops, may appear shortly after the rains only to disappear after a brief existence struggling for water. Obviously, the light, sparse stands of guayule in the desert are explained on the basis of the requirement by each plant for exclusive water rights to a considerable domain of parched stony soil. From an acre of typical growth in the desert, hardly more than 1,000 pounds of air-dry shrub can be harvested from unmolested stands without jeopardizing future crops, and under desert conditions 15 to 20 years are required for plants to attain size suitable for harvest. The natural provision for aggressive and successful competition for water by the roots of older plants is manifested when guayule is cultivated in thick stands with a relatively generous ration of water, as will be mentioned later.

POSSIBILITIES OF IMPROVING GUAYULE AND LOCATING AREAS SUITABLE FOR CULTIVATION

What are the characteristics of wild guayule that suggest the possibility of domesticating it and cultivating it as an economic plant? What are the inherent characteristics subject to intensification or material increase in quantity, or acceleration of the rate of increase, and where are the natural conditions of soil and climate or environmental factors amenable to control that suggest the possibility of adapting to them the improved plant with the desired combination of characteristics? That is the complex question posed for the plantsman. It is a tough job that has been posed many times to the primitive horticulturalists who did it successfully with the ancestral forms of corn, wheat, and sugarcane over periods of thousands of years. The modern plantsman is expected to telescope the process into a few years by use of the systematic and precise methods of modern science that permit him to decide quickly what needs to be done and select the material there is to do it with. It will be seen that wild guayule need not be considered a static thing fixed forever in a certain mold, but rather a dynamic entity subject to variation in form and character by intelligent selection of the desired qualities, and by choice of environments that stimulate or intensify those qualities.

Reduced to simple terms, the characteristics chiefly desired in improved guayule are those that will provide large production of rubber-rich shrub per acre in a reasonably short time, reduction of the impurities associated with rubber, resistance to disease that might be expected to increase in severity when the plants are congregated or exposed to new environments, and adaptation of the generative parts to mass reproduction by simple, easily controlled means. That seems to be a large order for improvements but, returning to an inspection of the wild plant in the desert in the light of these requirements, certain observations may be made that justify the hope of achieving some of them.

The first observation merely confirms the knowledge of any peon who gathers guayule for fuel or for the rubber factory, namely, that the rains stimulate an enormous acceleration of growth-rate of the shrub and if they come during the first half of the year the growth increment is greater, also that the plant is stimulated to produce abundant flowering stalks and seed by the same means any time between May and November.

As long ago as 1922 F. E. Lloyd² conducted a study of the anatomical structure and physiological processes of guayule that led to important advances in the knowledge of rate of growth as influenced by environment and the rate of rubber secretion relative to growth. In brief, he noted in guayule a phenomenon in the relation of vegetative growth and the storage of rubber analogous to the rhythmic alternation of growth and sugar storage in sugarcane, that is, rapid growth stimulated mainly by abundant water and long days is inimical to storage of the hydrocarbons and, conversely, checking of growth by withholding water, especially in the short-day period of the year, is favorable to enrichment of the storage cells by these materials. Whether the actual synthesis of the materials is interrupted during the period of rapid growth is not known, but the point of practical significance, abundant accumulation of the materials in storage-cells during the period of arrested growth, is well demonstrated. Although the factors other than water relationships were obscurely stated by Lloyd, it is plain that he recognized the main thing, the mutual exclusiveness of rapid increment in vegetative growth and the laying down of rubber in an easily recoverable form.

In addition to the differences in growth and rubber content as influenced by external conditions, there are very important inherent differences among the individual plants of the desert that may be capitalized upon in attempts to improve and domesticate guayule. As in many other wild plants, there is found in guayule considerable variation in characteristics, including percentage of rubber among individuals growing in the same situation and a still wider amplitude of variation among plants over the whole natural range. The differences in habit of growth, shape and color of leaves, and innumerable other differences can be detected by visual observation. By means of a simple field kit that can easily be carried in the desert, quantitative determinations of rubber show wide differences in the rubber content of different plants. By the

² Lloyd, F. E. *A Rubber Plant of the Chihuahuan Desert*. 213 pp., illus., 1911. Published by the Carnegie Institution of Washington, Washington, D. C.

mastication method previously described, the same can be demonstrated in a crude, approximate fashion. The variability in rubber content is perhaps the most important of the facts thus far alluded to in considering characteristics of the wild plant that originally encouraged the idea of domestication years ago and now suggests the widespread testing of areas for large-scale emergency production of guayule rubber.

It was mentioned that the problem of domesticating guayule is posed in two aspects; first, an examination of the inherent characteristics of the plant to see what improvements are possible in the plant itself and, second, an examination of field environments to locate the arid or semiarid areas naturally suited to best development of the improved, cultivated plant. The second aspect of the problem presents difficulties as great as the first. From the facts reasonably well established, it appears that guayule will not tolerate extremes of cold lower than minimum temperatures found in the natural range. That rules out all of the United States except Florida and the narrow fringe of coast or Mexican border areas extending clockwise from Cape Hatteras all around to Oregon. The plant may grow well in humid areas but under conditions of even moderate rainfall throughout the year, no rubber is laid down. That rules out Florida, all coastal areas east of the meridian of Corpus Christi, and most west coast areas north of San Francisco. The plant responds best to water and other growth stimuli during the period December to June and, as it is desirable to secure maximum "net" growth as rapidly as is consistent with an adequate drought rest period for rubber accumulation later in the year, it becomes obvious that available areas appropriate for guayule are sharply delimited. Conditions for forcing a desirable type of growth are not favorable where rains occur, even sporadically, during summer and fall. The ideal yearly distribution of rainfall for maximum growth rate combined with rubber storage would be winter and spring rains only. Areas that are practically rainless may not be excluded if irrigation water is available. Areas where rains are likely to occur in summer and fall, as in the places where guayule is found in the wild state, are not entirely ruled out but there may be setbacks in rubber production that would add to the duration of time required, perhaps a year or two, before harvest of the cultivated crop is possible. The apparent inconsistency of the natural range being inferior climatically to certain other areas for cultivation of guayule is explainable. In the natural range, although the heaviest rains occur in summer as a rule, the amount of rainfall varies greatly from year to year and occasionally the summers are almost rainless. Apparently, nature is not in a hurry to produce either the amount of growth or the rubber content desired by an eager husbandman and so in good time, 8 to 20 years, the conditions demanded for production of shrubs of good size with reasonably high percentage of rubber are intermittently and irregularly supplied.

The cultivator, however, will seek to compress into a 4- or 5-year period the natural growth of two to four times that period. To achieve it, conditions must be constantly optimum for the alternation of processes desired. The plant when cultivated is actually no more vulnerable to checks in the speeded-up processes caused by unfavorable weather than it is to checks in the same processes in the natural state but, relatively, the effect is more apparent and more serious. For example, when rent of land is a factor the loss of 1 year in 5 would be more serious than loss of 1 year in 20. Thus, it becomes important to discover areas exactly suited to the best development of the cultivated plant. Some suitable areas have been discovered, resulting from the persistent trials conducted by the Intercontinental Rubber Co., notably certain lands in the Salinas Valley of California. For cultivation of guayule on hundreds of thousands of acres, much more careful testing remains to be done.

Before describing the cultivation of guayule practiced by the Intercontinental Rubber Co., we present a recapitulation of facts brought into view in the discussion of the plant in its native habitat and the several characteristics providing points of departure for efforts directed toward domestication:

1. Guayule is a slow-growing xerophyte of the dry table-lands of north-central Mexico and adjacent Texas that secretes rubber in the branching stem and root, requiring up to 20 years to attain a dry weight of 1 or 2 pounds.

2. Irrigation stimulates a greatly accelerated equivalent growth in 3 or 4 years, but drought rest periods are required for accumulation of rubber.

3. Individuals vary greatly in many characteristics, including rubber content which varies from 1 to 20 percent of the dry weight of the plants.

4. The rubber is easily extracted by maceration in pebble mills.

5. Seed production is abundant following rains in summer. Germination of seeds is not uniform, being retarded in some individuals. Progenies of some plants are true to seed, but exhibit variation in others.

6. On the natural range, guayule is very discriminating as to local environment, preferring slopes of limestone ridges. Because of the evidence of extreme choosiness in this respect, the plant would appear to be difficult to cultivate. Tests have shown, however, that, within limits, the plant is quite adaptable and the restriction to peculiar environments is evidently due partly to competition with other plants and partly to greater tolerance of the conditions where it is found.

It would be a mistake to look upon guayule as a tough, adaptable plant merely because it withstands the rigorous conditions of the desert. The most difficult plants to cultivate are some of the weeds found in waste places that appear to thrive anywhere. Considering the facts that can be established by a rather cursory examination of guayule in its natural habitat, together with facts brought out by test and experiment, it is clear that within the limits of its geographic range and in certain other areas that offer climatic advantage, this wild plant can be so improved and handled that the annual increment of rubber per acre is vastly augmented. On the cost of such operations depends the competitive status of guayule as an economic cultivated plant.

CULTIVATION

As mentioned earlier, practically all of the plant improvement research and the field tests of cultivation, representing attempts to translate the research into commercial field practices, have been conducted by the International Rubber Co. It was recognized in 1908 that, because of the limited amount of wild guayule and the slow rate of natural regeneration, no large rubber industry could be based on exploitation of the desert shrub and attention was turned to study of methods of rapid reproduction, acceleration of growth, and production of plants of high quality by cultivation. At first, the experimental work was done by F. E. Lloyd at Cedros and nearby points in Mexico and, beginning in 1911 and continuing to the present, by W. B. McCallum in the United States. Extensive trials indicated that vegetative reproduction by cuttings of various type was impracticable and so, in spite of numerous difficulties in the way of large-scale multiplication by seed, the decision was made to focus attention on that method. The brief reference made earlier to peculiarities of natural regeneration by seeds in the desert and the following account of present practices at Salinas give an indication of the problems encountered and the sustained effort required to reduce the handling and sowing of the minute seeds to something resembling procedures with more familiar crops. The seeds are minute, almost microscopic, averaging 600,000 to the pound and seemingly are temperamental in refusing to be regimented into germinating and developing in unison, an obvious requirement for efficient handling. The various seed problems have been met, however, in a reasonably satisfactory manner.

Seed production, collection, treatment, and sowing.—The small, composite flowers appear in May and, if the plants are irrigated, they continue to be developed until September or October. Even the tiny yearling plants in the irrigated nursery, from seed planted in late winter, will produce flowers and seed the same year in sufficient abundance to multiply the nurseries tenfold annually. In contrast, the larger field plants produce much greater quantities of seed but, as in the desert, only if stimulated by water, and at Salinas seed production tapers off in late summer and fall with the advent of dry weather. The striking effect of water supply on flower and seed production was observed there in late September 1941. A small patch of field plants in a large field was seen to be literally covered with a new flush of bloom and on examination the patch was found to be benefiting by an accidental flow of water from an irrigated field of beans across the roadway. It is customary at Salinas to irrigate field plantings in late summer, if more seed is wanted. Three good pickings of seed per year can be made from field plants beginning about July 1. The maximum yield of seed is from 3-year-old cultivated plants.

The seed is collected from plants in the nursery or fields by the use of a specially designed suction picker built upon a tractor. The principle is similar to a vacuum cleaner in that a suction device passes over the tops of the plants as they are jarred or disturbed by a fixed metal bar and the dislodged seeds pass upward through the duct and onto the large collecting bag. The picker

takes two rows at a time and, on the average, collects about 15 two-bushel sacks weighing 18 pounds each, or 30 bushels a day, from good seed fields. Chaff and debris of various sorts constitute much of the bulk but when recleaned there remains about 15 bushels of fairly clean seed. Seed from older plants have been found to have more dirt. The cleaning is done in a seed house with a clipper fanning mill which removes small twigs, leaves, etc.

If the seed is to be used within 3 years, it can be stored in sacks without special control of moisture content, which often reaches 10 percent. If a reserve of seed is to be kept for more than 3 years, it must be dried to 4 percent moisture. This is accomplished by spreading the seed on greenhouse benches or in a ventilated cold frame covered with sash. At Salinas, the hot summer sun usually dries the seed to the required moisture percentage under these conditions in 1 day. It is then placed in 50-gallon metal drums and hermetically sealed with solder around the lid where it will keep with little or no loss of viability for 10 years or more. Should it be desirable to thresh any of the seed, for example, small quantities for experiments in which individual seeds are counted, it is necessary to make the chaff brittle. This is best accomplished by placing the cleaned seed in a drying oven for 1 or 2 hours at 110° Fahrenheit after which it may be threshed by gently rubbing the seed on a finely corrugated rubber mat, with a block faced with the same material, like a small blackboard eraser. For ordinary use in the nursery, the seed is not threshed.

Special treatment of the cleaned seed before sowing in the nursery is indispensable. It is first washed in slowly revolving perforated drums with a continuous flow of water for several hours. During the course of the washing process an inky, gelatinous substance comes from the chaff which results in a 20 percent loss of weight (if the seed is restored to original dryness at this point) and the wet seed is then passed to containers for chemical treatment to stimulate uniform, prompt germination. The seed is then centrifuged to remove water but remains damp to the touch. It is then carried to the germinating room and spread in large trays to a depth of 4 inches. The trays, about a yard square and 7 inches deep, are compactly stored on racks about the walls of the germinating room which is kept at a temperature of 70° to 75° Fahrenheit and, by means of a humidifier, at the saturation point of atmospheric moisture. The seed is stirred and tumbled about by hand every 12 hours and, on the average, remains in the trays 4 days before germination starts.

The presprouted seed is then mixed with equal parts, or more, of sprinkled and slightly moist sawdust, and a charge of the mixture, representing enough seed for one seedbed, or 1 pound of original seed, is fed into a revolving wooden drum and thoroughly mixed. The mixture of seed and sawdust is discharged into a 5-gallon gasoline can and carried to the prepared nursery bed where it goes into the hopper of a specially designed nursery seeder, the wheels of which run on "duck boards" made of redwood planks. The duck boards also serve the purpose of dividing the nursery into individual beds 4 feet wide and 195 feet long so that the nursery gives the impression of being a football gridiron in a bowl, the bleachers surrounding the gridiron being the tall mass of Eucalyptus trees used for windbreaks. The automatic seeder lays a long carpet of the treated, presprouted seed and sawdust mixture 4 feet wide, compacts it with a roller and covers it with a layer of clean sand one-tenth inch thick in one continuous operation. The sand aids in keeping the sprouting seed in place and acts as a mulch during early growth of the little plants. They have now reached a critical stage in their existence and the succeeding operations as practiced now, although simple, represent the culmination of much trial and error beginning with selection of suitable soils for the nursery, proper irrigation practices to insure highly accelerated growth without introducing conditions favorable to the aggressive organisms causing damping-off and other diseases, plus the systematic selection of strains or varieties of guayule that have inherent resistance to the nursery diseases. These problems have been met in a reasonably satisfactory manner and a few strains of the plant that answer requirements in the field can be produced regularly and with assurance of success, to the lifting stage in the nursery. After the germinated seeds have been laid on the carefully prepared nursery beds and covered with sand, they are immediately watered by means of an overhead irrigation system, permanently installed in the nursery. The soil is kept continuously moist by irrigations at 8, 12, and 4 o'clock. If the air is moist or the day cloudy 5 to 10 minutes may suffice but with a bright sun a half hour of sprinkling is required each time. On succeeding days, the number of irrigations may be less but the duration longer. After the seedlings are 1 inch tall,

usually in one to 2 weeks, the number of daily irrigations is permanently reduced to two and in another week to one.

As the plants get larger, they are irrigated for 2 hours every other day and finally, for about 4 hours once per week. The amount of irrigation needed can not be stated arbitrarily, because it depends upon utilization of the water by the plants, and that depends upon their size, character of weather, etc., but the schedule outlined gives an approximate idea of the care and attention to water requirements needed to insure maximum forced growth that will result in transplantable seedlings at the proper time for setting them out in the field. Great care is taken to keep out weeds and grasses in the nursery. These pests benefit by the efforts to maintain optimum conditions for rapid development of the guayule and vigorous growth of even a few weeds would suppress the guayule seedlings. Low weeding platforms, or seats on wheels that operate on the track formed by the duck boards, are pushed slowly over the beds by the operators and the weeds are plucked and uprooted by hand. In the upkeep of nurseries, weeding constitutes the chief item of expense aside from irrigation. Seedlings are removed from the nursery for field planting in mid-January to mid-April when 10 to 12 months old. Prior to removal from the nursery, the seedlings are topped to about 2 inches from the ground level by a special mowing machine. The seedlings are then lifted and soil loosened by drawing a specially adapted blade mounted on a powerful tractor through the soil at a depth of 10 inches. The blade extends under the bed from one side to the other and lifts soil and plants en masse as it passes longitudinally down the bed. Seedlings are collected by hand and carefully sorted and boxed, 5,000 to the box. They are soaked in a 0.5 percent solution of potassium permanganate to insure protection against soil pathogens and are planted within 24 hours of lifting.

Field planting.—Land is plowed with turning plows in the fall or after shrub has been taken off a guayule field. This is followed by disk harrows and the soil worked up to a very loose condition. If the land stands for any length of time before planting, or if there are rains, the land is again disk harrowed just ahead of planting.

Field planting is done by an ingeniously devised planter, either 4 or 6 row, so regulated that an even spacing is secured in order to allow later cultivation in two directions. This spacing is done by a special wire and electric tripping device which can be arranged to space the plants 28 inches, 30 inches, or any distance apart that may be desired. An essential feature of the planter is inclined rollers or wheels which pack the soil around the roots. Planting is done in the spring, at the end of the winter rains, and no irrigation is used in the field planting. An exception is made on small blocks especially set aside for seed production.

On a six-row planter, six men are necessary to place the seedlings in the tripping device, two helpers to distribute the seedlings to the planters, and a tractor driver. Ordinarily, they can plant 360 plants per minute, or with allowance, about 1½ acres per hour, or 15 acres in a 10-hour day. Survival is said to be better than 90 percent, and has been as high as 95 percent.

General practice heretofore has been to space the plants 28 by 28 inches, giving final results approximately around 7,250 mature plants per acre. It is thought, however, that a spacing of 30 by 30 inches would be better, this giving around 6,500 mature plants per acre. The main reason for this appears to be easier cultivation on old shrub. In the closer spacing there is a considerable loss, particularly at the end of rows, caused by breakage of limbs by the cultivator.

Cultivation.—The object of cultivation is to conserve moisture, to reduce weed competition for moisture, and to ensure a clean crop for harvesting. As pointed out above even spacing allows cultivation in two directions. If planted by the six-row planter a six-row cultivator is used, which is about the practical limit of multiple row cultivation. The six-row cultivator is now a standard machine on the market.

The number of cultivations necessary the first year depends upon the seed condition of the land. Ordinarily, for early planting three cultivations are given and for late planting two cultivations. If, however, the land has been in barley the year before, four cultivations may be necessary. In the second and third years three cultivations are necessary and in the fourth year, two. After the fourth year the only cultivation necessary is for weed control; if there are few or no weeds, no cultivation is given.

In addition to this machine cultivation, during the first and second years the fields must have more or less hand hoeing to remove weeds close to the plants and which cannot be removed by the cultivators without damage to the young plants. The cost of this would depend on the condition of the field and at Salinas with labor at 40 cents per hour might cost as high as \$1.50 an acre, or \$6 per year.

There is also a small expense for pest control—gophers, ground squirrels, etc. In times of unseasonal heavy rains, there might be necessity for drainage. In general, only those things to be expected are those usually connected with general farming operations.

Harvesting.—The plants are usually harvested after 4 years in the field but, depending upon various considerations, the "cycle" in the field may be 2 to 7 years or longer. After 2 years in the field, even if planted extra thickly, not more than 600 pounds of rubber per acre may be recovered and increments of rubber beyond that time planted with the customary spacings are approximately 350 pounds per acre annually.

Harvesting the shrub is done in three stages: (a) Digging or cutting the roots; (b) windrowing into two rows and then two of these rows thrown into one windrow by a side delivery rake; (c) picking up this row by a special machine, the shrub cut into small pieces and blown into a following truck or trailer. The cut shrub is then transported to the mill.

The cutting of roots is done by a heavy two-row plow, with extra hardened points inclined toward each other, and these cut the roots about 10 inches below the surface of the furrow, and throw the two rows of shrub into one windrow.

PART II. FINANCIAL STATEMENT ON THE OPERATION OF H. R. 6262

ESTIMATED COSTS OF PLANTING AND PROCESSING GUAYULE

The costs of planting and processing guayule shrub are estimated on the basis of plantings of 45,000 acres and of 75,000 acres, respectively. The cost of purchasing patents, processes, data, tangible and intangible properties of the Intercontinental Rubber Co. and its subsidiaries having to do with guayule growing and processing in the United States is not included. Estimates are based on the fact that nursery plantings have been made in 1941 sufficient to plant 2,000 acres in 1942 and that additional nurseries will be needed in 1942 to provide plants for the indicated acreages in 1943.

	Basis of 45,000 acres	Basis of 75,000 acres
Estimated expenditures, fiscal year 1942:		
Nursery equipment, overhead irrigation systems, and all nursery capital costs.....	\$550,058	\$918,597
Operation of nurseries ¼ year.....	136,740	232,140
Land preparation, 2,000 acres, at \$10 per acre.....	20,000	20,000
Planting 2,000 acres, at \$8.25 per acre.....	16,500	16,500
Cultivation, 2,000 acres, ¼ year, at \$13.56 per acre per year.....	6,780	6,780
Rental, 2,000 acres, ¼ year, at \$10 per year.....	5,000	5,000
Overhead expenses, land acquisition, scientific surveys to determine suitable lands, studies of guayule-production methods and guayule rubber.....	150,000	150,000
Estimated cost, fiscal year 1942.....	885,078	1,349,017
Estimated expenditures, fiscal year 1943:		
Operation of nurseries, ¾ year.....	410,220	696,420
Land preparation at \$10 per acre.....	430,000	730,000
Planting at \$8.25 per acre.....	354,750	602,250
Field-planting equipment.....	269,200	449,564
Cultivation, 2,000 acres, 1 year, at \$14.....	28,000	28,000
Cultivation, remainder, ¼ year, at \$13.56.....	291,540	494,940
Rental, 2,000 acres, at \$10 per year.....	20,000	20,000
Rental, ½ year, at \$10 per acre.....	215,000	365,000
Overhead expenses, land acquisition, continuation of scientific studies, etc.....	300,000	400,000
Estimated cost, fiscal year 1943.....	2,318,710	3,786,174

	Basis of 45,000 acres	Basis of 75,000 acres
Estimated expenditures, fiscal year 1944:		
Cultivation, 2,000 acres, 1 year, at \$12.....	\$24,000	\$24,000
Cultivation, remainder, 1 year, at \$14.....	602,000	1,022,000
Rental, 1 year, at \$10.....	450,000	750,000
Upkeep and renewal of equipment.....	50,000	83,500
Overhead, continuation of scientific studies, etc.....	200,000	267,000
Estimated cost, fiscal year 1944.....	1,326,000	2,146,500
Estimated expenditures, fiscal year 1945:		
Cultivation, 2,000 acres, 1 year, at \$9.....	18,000	18,000
Cultivation, remainder, 1 year, at \$12.....	516,000	876,000
Rental, 1 year, at \$10.....	450,000	750,000
Upkeep and renewal of equipment.....	100,000	167,000
Overhead, continuation of scientific studies, etc.....	200,000	267,000
Estimated cost, fiscal year 1945.....	1,284,000	2,078,000
Estimated expenditures, fiscal year 1946:		
Cultivation of 2,000 acres, ½ year, at \$8.....	8,000	8,000
Cultivation of remainder at \$9.....	387,000	657,000
Rental at \$10.....	450,000	750,000
Harvest, 7,640 tons of shrub from 2,000 acres, at \$5 per ton.....	38,200	38,200
Mill 7,640 tons of shrub, at \$14.256 per ton.....	108,916	108,916
Deresinate 1,260 tons of crude guayule rubber, at \$60 per ton.....	75,600	75,600
Deresination equipment.....	20,000	20,000
Upkeep and renewal of equipment.....	100,000	167,000
2,000 field-acres harvested.....	25,440	25,440
Total operating cost.....	1,213,156	1,850,156
Value of 1,100 tons of refined guayule (after allowing a loss of 16 percent in deresination) at 22½ cents per pound.....	495,000	495,000
Estimated cost, fiscal year 1946.....	718,156	1,355,156

The entire planting will be ready to harvest during the fiscal year 1947 to provide for going on to a 4-year cycle unless the needs of the United States for rubber require the harvest of the entire planting only sufficient extraction factories to extract the rubber from one-fourth of the total acreage would be constructed. On the 45,000-acre basis, 11,250 acres would be harvested in the fiscal year 1947; 11,250 acres in 1948; 11,250 acres in 1949; and 11,250 acres (including the second harvest from the first 2,000 acres) in 1950. Each year, 11,250 acres would be replanted. To harvest the shrub from 11,250 acres of 4-year-old shrub annually would require 6 factories, or 5 in addition to the one now at Salinas. On the 75,000-acre basis, 18,750 acres of shrub would be handled annually and 9 additional factories would be required.

	Based on 45,000 acres	Based on 75,000 acres
Estimated expenditures, fiscal year 1947:		
Cultivation of ¼ acreage ½ year at \$8 per year.....	\$45,000	\$75,000
Cultivation, ¾ of acreage, 1 year at \$8.....	270,000	450,000
Plant nurseries sufficient to replant acreage harvested.....	143,100	238,500
Rental at \$10.....	450,000	750,000
Harvest shrub from ¼ of acreage at \$5 per ton.....	214,875	358,125
Mill shrub from ¼ of acreage at \$14.256 per ton.....	612,652	1,021,086
Deresinate 7,090 tons crude guayule rubber at \$60 per ton.....	425,400	
Deresinate 11,818 tons crude guayule rubber at \$60 per ton.....		709,080
Harvesting equipment.....	150,000	250,000
Deresination equipment.....	80,000	130,000
Upkeep and renewal of equipment.....	105,000	172,000
5 additional extraction factories at \$250,000.....	1,250,000	
9 additional extraction factories at \$250,000.....		2,250,000
Estimated gross cost, fiscal year 1947.....	3,746,027	6,403,791
Less value of rubber produced after allowing for 16-percent shrinkage in deresination, computed at 22½ cents per pound.....	2,680,200	4,467,600
Estimated net cost, fiscal year 1947.....	1,065,827	1,936,191

	Based on 45,000 acres	Based on 75,000 acres
Estimated expenditures, fiscal year 1948:		
Cultivation, $\frac{1}{4}$ of acreage $\frac{1}{2}$ year, at \$8.....	\$45,000	\$75,000
Cultivation, $\frac{1}{2}$ of acreage 1 year, at \$8.....	180,000	300,000
Plant nurseries for $\frac{1}{4}$ of acreage.....	143,100	238,500
Replant $\frac{1}{4}$ of acreage, at \$8.25.....	92,812	154,687
Cultivate $\frac{1}{4}$ of acreage, at \$13.56.....	152,550	254,250
Upkeep and renewal of equipment.....	128,000	200,000
Rental, at \$10.....	450,000	750,000
Harvest shrub from $\frac{1}{4}$ of acreage. Since this shrub would be 5 years in the field, the yield of shrub would be 22.5 percent higher.....	263,250	438,750
Mill shrub from $\frac{1}{4}$ of acreage.....	750,578	1,250,964
Deresinate 9,477 tons crude guayule rubber, at \$60 per ton.....	568,620	
Deresinate 15,795 tons crude guayule rubber, at \$60 per ton.....		947,700
Estimated gross cost, fiscal year 1948.....	2,773,910	4,609,851
Less value of rubber, at 22.5 cents per pound after allowing for 16 percent shrinkage in deresination.....	3,582,450	5,970,600
Estimated net profit, fiscal year 1948.....	808,540	1,360,749

Summary of estimated expenditures

	Basis of 45,000 acres	Basis of 75,000 acres
Fiscal year—		
1942.....	\$885,078	\$1,349,017
1943.....	2,318,710	3,786,174
1944.....	1,326,000	2,146,500
1945.....	1,284,000	2,078,000
1946.....	1,213,156	1,850,156
1947.....	3,746,027	6,403,791
1948.....	2,773,910	4,609,851
Estimated gross expenditures to June 10, 1948.....	13,546,881	22,223,489
Value of rubber produced:		
1946.....	495,000	495,000
1947.....	2,680,200	4,467,600
1948.....	3,582,450	5,970,600
Less total value of rubber produced to June 30, 1948.....	6,757,650	10,933,200
Estimated net expenditures to June 30, 1948, excluding payments to the Intercontinental Rubber Co.....	6,789,231	11,290,289

Operations after June 30, 1948, would be approximately as of 1948. In the tabulations no account has been taken of depreciation, and all figures are based on operation figures compiled at Salinas, Calif. Plantings made in other areas would require irrigation involving expenditures for the irrigation as well as the original installation of irrigation facilities. Costs in other areas might run from 20 to 50 percent higher than at Salinas. Nevertheless, operations should be conducted at other locations in Southern California, Arizona, New Mexico, and Texas on a sufficient scale to determine the possibility of large-scale production of guayule rubber in the continental United States if emergency production of a large proportion of our needs for crude rubber is necessary.

TERMINATION CONTINGENCY SHOWING GROSS AND NET COSTS TO THE GOVERNMENT OF
LIQUIDATING EMERGENCY GUAYULE PLANTINGS

If the war is ended and normal conditions are restored, it may be desirable to close out the guayule plantings. The cost of such liquidation at any given time involves the question of how to make best use of the shrub in the field at that time. Below are given tabulations showing how the operations could be closed out to the best advantage to the Government. These are based on the closing-out process starting at the end of the fiscal year and continuing for the shortest period advantageous to the Government. This tabulation is made only for the 45,000-acre planting but would be proportionate if used for 75,000 acres.

Termination contingency, fiscal year 1942.—No tabulation is made on the discontinuation of the plantings as of June 30, 1942, since the young field plants would have no value and the entire expenditure would be a loss except for the resale or junk value of the equipment. Since production of guayule rubber from

cultivated plants is an uneconomic undertaking in competition with Hevea rubber from the Tropics, the resale value of equipment probably would be only the junk value.

Termination contingency, fiscal year 1943.—Only the initial 2,000-acre field planting would be of any value at this time, the 45,000 acres planted in the field in 1943 being too young to contain appreciable rubber. The 2,000 acres would produce only approximately 280 tons of refined guayule rubber worth \$126,000 at 22.5 cents per pound, and the cost of harvesting, milling, and deresination would be \$87,531. Whether it would pay to harvest the shrub and extract the rubber would depend on the price of rubber at that time.

Termination contingency, fiscal year 1944.—If operations should be suspended as of June 30, 1944, two courses of action would be open:

(1) Utilize only present factory to extract rubber from the shrub from the entire area. If shrub were harvested only as used, thus allowing for further growth in the field, there would be a great increase in the amount of the remaining shrub before it could be harvested. The one factory, working 350 days per year and processing 30 tons of shrubs per day can handle 10,500 tons of shrub per year. Utilizing shrub at the age attained June 30, 1944, the one factory could handle the shrub from 14,000 acres in 1 year. With increased growth of the remaining shrub the factory could only handle that from 5,900 acres during the year commencing July 1, 1945, 2,750 acres the following year, and so on until when the shrub reaches full size the factory could handle the shrub of only 1,314 acres. On this basis it would take the present factory 19 years to process the shrub from 45,000 acres of guayule.

(2) Install one additional factory making it possible to process the entire crop of guayule shrub in 3 years since the two factories could handle 28,000 acres of small shrub the first year, 11,800 acres of somewhat larger shrub the second, and the remaining 5,200 acres the third year. Under this plan a total of 56,928 tons of shrub yielding 5,090 tons of rubber would be produced while under plan (1), extending over 19 years, 191,812 tons of shrub containing 30,563 tons of rubber would be obtained. In the following tabulation it is assumed that rental payments on land would cease as rapidly as the shrub was removed so that the average rental for acreages harvested in any one year would be only 6 months.

Statements showing total cost to June 30, 1944, and cost of suspension of activities utilizing available shrub for rubber:

PLAN 1.—Utilize present factory only and process shrub over a period of 19 years

Estimated expenditures, fiscal year 1942.....	\$885, 078
Estimated expenditures, fiscal year 1943.....	2, 318, 710
Estimated expenditures, fiscal year 1944.....	1, 326, 000
Land rental at the rate of \$10 per acre per year:	

Acres	Years	Amount
14,000.....	1½	\$70, 000
5,900.....	1½	88, 500
2,750.....	2½	68, 750
2,243.....	3½	78, 505
1,934.....	4½	87, 030
1,716.....	5½	94, 380
1,546.....	6½	100, 490
1,419.....	7½	106, 425
1,314.....	8½	111, 690
1,314.....	9½	124, 830
1,314.....	10½	137, 970
1,314.....	11½	151, 110
1,314.....	12½	164, 250
1,314.....	13½	177, 390
1,314.....	14½	190, 530
1,314.....	15½	203, 670
1,314.....	16½	216, 810
1,314.....	17½	229, 950
352.....	18	63, 360

Total land rental..... 2, 465, 640

Cultivation to time of harvest-----	\$1, 546, 550
Harvest 191,812 tons shrub at \$5 per ton-----	259, 000
Mill 191,812 tons shrub-----	2, 734, 472
Deresination equipment-----	100, 000
Deresinate 30,563 tons rubber at \$60 per ton-----	1, 833, 780
Overhead, 18 years at \$50,000 per year-----	900, 000

Estimated gross expenditures at end of operation exclusive of cost of Intercontinental Rubber Co. properties-----	14, 369, 230
Less value of 30,043 tons of rubber (allowing for 16 percent shrinkage in deresination) and figuring the price at 22.5 cents per pound-----	13, 519, 350

Estimated net loss to Government if no return is obtained for physical properties, exclusive of payments to Intercontinental Rubber Co-----	849, 880
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PLAN 2. For closing out operations beginning June 30, 1944—Construct one additional factory and process shrub from entire 45,000 acres in 3 years

Total cost, fiscal year 1942-----	\$885, 078
Total operations cost, fiscal year 1943-----	2, 318, 710
Total operation cost, fiscal year 1944-----	1, 326, 000

COSTS OF SUSPENSION INVOLVING UTILIZING SHRUB FOR RUBBER

Construct one extraction factory-----	\$250, 000
Deresination equipment-----	100, 000
Harvesting equipment-----	150, 000
Harvest 56,928 tons shrub at \$5 per ton-----	284, 640
Mill 56,928 tons shrub at \$14.256 per ton-----	811, 565
Deresinate 5,090 tons of rubber at \$60 per ton-----	305, 400
Land rental at the rate of \$10 per acre per year:	
28,000 acres ½ year-----	\$140, 000
11,800 acres 1½ years-----	177, 000
5,200 acres 2½ years-----	130, 000

Total land rental-----	447, 000
Overhead 3 years at \$50,000-----	150, 000

Estimated gross expenditures to end of operations, exclusive of payments to Intercontinental Rubber Co-----	7, 028, 393
Less: Value of 4,276 tons rubber (allowing for 16 percent shrinkage in deresination) at 22.5 cents per pound-----	1, 924, 200

Estimated net loss to Government if no return is obtained for physical properties and exclusive of payment to Intercontinental Rubber Co-----	5, 104, 193
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Termination contingency 1945.—Because of increased size it would take the present factory 30 years to process the shrub from the 45,000 acres beginning July 1, 1945. Two factories could harvest the shrub in 11 years. As a result, tabulation is prepared on the basis of two factories.

Total cost, fiscal year 1942-----	\$885, 078
Total cost, fiscal year 1943-----	2, 318, 710
Total cost, fiscal year 1944-----	1, 326, 000
Total cost, fiscal year 1945-----	1, 284, 000

Liquidation expenses:

Construct one new factory-----	250, 000
Deresination equipment-----	100, 000
Harvesting equipment-----	150, 000
Harvest 207,091 tons shrub at \$5 per ton-----	1, 035, 455
Mill 207,091 tons shrub at \$14.526 per ton-----	2, 925, 289
Deresinate 36,902 tons of rubber at \$60 per ton-----	2, 214, 120

Land rental at the rate of \$10 per acre per year:

Acres	Years	Amount
11, 800-----	1½	\$59, 000
5, 500-----	1½	82, 500
4, 483-----	2½	112, 075
3, 868-----	3½	135, 380
3, 432-----	4½	154, 440
3, 092-----	5½	170, 060
2, 838-----	6½	184, 470
2, 628-----	7½	197, 100
2, 628-----	8½	223, 380
2, 628-----	9½	249, 660
2, 103-----	10	210, 300
Total land rental-----		\$1, 778, 365.
Estimated gross expenditures to end of operations exclusive of sales to Intercontinental Rubber Co-----		14, 294, 017
Less value of 36,242 tons of rubber (16 percent shrinkage in deresination) at 22.5 cents per pound-----		16, 308, 900
Estimated net to Government if no return is obtained for physical properties and exclusive of payments to Intercon- tinental Rubber Co-----		2, 014, 883

BASIC DATA FOR ESTIMATING COSTS

The following tables were compiled from data of the Intercontinental Rubber Co. Pages 1 to 5 are data compiled for this Department in connection with a special survey made of the Salinas operations in March 1941; page 6 is a compilation furnished by the Intercontinental Rubber Co. in June 1941. These tables give the data on which tabulations of expenditures for plantings of guayule are based.

Estimate of cost per pound of guayule rubber

100 NET ACRES NURSERY BEDS—56,000 ACRES, 4-YEAR CYCLE

	<i>Cost per field acre</i>
Nursery costs-----	\$12. 72
Land preparation-----	10. 00
Planting-----	8. 25
Care:	
1st year-----	13. 56
2d year-----	14. 00
3d year-----	12. 00
4th year-----	9. 00
Rental-----	45. 00
Harvest 3.75 tons-----	18. 37
Milling-----	53. 46
Direct costs-----	196. 36
Depreciation costs-----	14. 32
General expense and supervision—15 percent of operation-----	27. 44
Total cost per acre exclusive of interest on capital and operation investment-----	238. 12

Cost of production—19.25 cents per pound.

Basis: 3.75 tons b. d. (bone dry) shrub per acre, if 16.5-percent rubber or 1,237 pounds per acre.

Submitted March 29, 1941.

W. B. McCALLUM.

100 NET ACRES NURSERY BEDS—70,000 FIELD ACRES, 5-YEAR CYCLE

Nursery costs.....	\$12.72
Land preparation	10.00
Planting.....	8.25
Care:	
1st year.....	13.56
2nd year.....	14.00
3d year.....	12.00
4th year.....	9.00
5th year.....	8.00
Rental $5\frac{1}{2} \times 10$	55.00
Harvest 4.5 tons.....	22.05
Milling 4.5 tons at 14.256.....	64.15
Direct costs.....	228.73
Depreciation costs.....	17.90
General expense and supervision—15 percent of operation.....	34.31

Total cost per acre exclusive of return on capital and operation investment 280.94

Cost per pound B. D. Rubber, 17.34 cents.

Basis: 4.5 tons B. D. (bone dry) shrub per acre; 1,620 pounds rubber per acre.

Submitted March 26, 1941.

C. A. LEE,
W. B. McCALLUM.

Investment estimate—Depreciation schedule, 5-year cycle

	Permanent	5 years	10 years	15 years	20 years	Investment total
Nursery and equipment..	\$56,102.00	-----	\$24,209.25	\$80,088.80	\$11,493.72	\$171,893.77
Managerial headquarters..	-----	-----	15,000.00	11,500.00	31,700.00	58,200.00
Section headquarters.....	6,750.00	-----	25,000.00	1,750.00	48,357.00	81,857.00
Unit headquarters.....	47,245.80	-----	17,493.00	12,230.40	217,030.80	294,000.00
Field equipment.....	-----	\$269,200.00	800,647.25	11,858.00	-----	1,081,705.25
Factories.....	10,000.00	5,500.00	-----	1,250,000.00	20,000.00	1,285,500.00
Total.....	120,097.80	274,700.00	882,349.50	1,367,427.20	328,581.52	2,973,156.02
Annual depreciation.....	.00	54,940.00	88,234.95	91,161.81	16,429.08	250,765.84

Depreciation cost per acre—70,000 acres:

Per year..... \$3.58

Years..... $\times 5$

Depreciation per acre for 5-year cycle..... 17.90

Estimate of cost per pound of guayule rubber

100 NET ACRES NURSERY BEDS—98,000 FIELD ACRES, 7-YEAR CYCLE

	<i>Cost per Field acre</i>
Nursery costs.....	\$12.72
Land preparation.....	10.00
Planting.....	8.25
Care:	
First year.....	13.56
Second year.....	14.00
Third year.....	12.00
Fourth year.....	9.00
Fifth year.....	8.00
Sixth year.....	8.00
Seventh year.....	8.00
Rental $7\frac{1}{2} \times 10, 7\frac{1}{2}$ years at \$10 per year.....	75.00
Harvest, 6 tons per acre.....	29.39
Mill, at \$14.256 per dry ton.....	85.54
Direct costs.....	293.46
Depreciation costs.....	22.91
General expense and supervision—15 percent of operating costs.....	44.02
Total cost per acre, exclusive of return on capital and operation investment.....	360.39

Total cost per pound bone-dry rubber, 15 cents.

Basis: 6 tons bone-dry shrub per acre; 2,400 pounds bone-dry rubber per acre.

Investment estimates—Depreciation schedule, 7-year cycle

	Permanent	5 years	10 years	15 years	20 years	Investment total
Nursery and equipment.....	\$56,102.00	-----	\$24,209.25	\$80,088.80	\$11,493.72	\$171,893.77
Managerial headquarters.....	-----	-----	15,000.00	11,500.00	31,700.00	58,200.00
Section headquarters.....	9,450.00	-----	35,000.00	2,450.00	67,700.00	114,500.00
Unit headquarters.....	66,144.12	-----	24,490.20	17,122.56	303,843.12	411,600.00
Field equipment.....	-----	\$302,400	1,258,941.00	-----	-----	1,561,342.00
Factories.....	14,000.00	7,700	-----	1,400,000.00	28,000.00	1,449,700.00
Total.....	145,696.12	310,100	1,357,642.45	1,511,161.36	442,736.84	3,767,335.77
Annual depreciation.....	-----	62,020	135,764.15	100,744.09	22,136.84	320,665.08

Depreciation cost per acre, 98,000 acres, \$3.272 per year. Depreciation per acre for 7-year cycle, \$22.91.

Intercontinental Rubber Co.—Guayule rubber production data based on experience at the company's Salinas, Calif., experiment station

This extraction unit, or larger units, could be duplicated as desired.

The extraction unit now at the experiment station has a capacity of 30 short tons of dry guayule shrub per day, or 10,000 tons per year. Early this year 450,000 pounds of dry rubber were produced and sold.

Guayule seed is planted in nursery beds equipped with sprinklers. The following spring seedling plants are transplanted to nonirrigated fields.

Eight hundred nursery beds, now being planted with 1,200 pounds of seed, will supply 2,000 field acres next spring. There is on hand an additional 11,800 pounds of seed, and 4,000 pounds will be harvested this year.

The yield of seed is sevenfold from 1-year-old shrub and from tenfold to twentyfold from older shrub.

	Field age of shrub harvested, years									
	1	2	3	4	5	6	7	8	9	10
Dry shrub harvested per acre										
Short tons.....	0.75	1.78	2.87	3.82	4.68	5.43	6.12	6.79	7.40	7.99
Required to yield 10,000 tons shrub in 1 year.....	13,333	5,618	3,484	2,618	2,137	1,842	1,634	1,473	1,351	1,252
Required for crop cycle.....	13,333	11,236	10,452	10,472	10,685	11,052	11,438	11,784	12,159	12,252
Dry rubber extracted, percent of shrub weight.....	6	9	13	16½	18	19¼	20	20	20	20
Annual production of dry rubber										
Short tons.....	600	900	1,300	1,650	1,800	1,925	2,000	2,000	2,000	2,000
Cost per pound of rubber.....Cents.....	81.6	35.2	20.2	14.5	12.9	11.8	11.3	11.3	11.3	11.3

The foregoing costs assume continuing operation of land and reasonable weed control. The excess cost, if any, of initial weed control for badly infested land is not included.

If 1 acre of guayule shrub be set out each year for 10 years, without harvesting, then at the end of 10 years the rubber reserve in the 10 acres of living shrub, available for extraction, would be 17,500, or 8.75 short tons. If, similarly, 10,000 acres be set out each year, the rubber reserve in living shrub would be 87,500 short tons. And if 100,000 acres be set out each year, the rubber reserve would be more than the present annual United States consumption, or 875,000 short tons.

NOTE.—This presumes a total harvest from the entire 1,000,000 acres and would supply only 1 year's crop. It would take annual plantings of about 900,000 acres to supply continuously 600,000 long tons of guayule rubber per year on a 4-year basis, or a total acreage in shrub of 3,600,000 acres. This statement was submitted June 8, 1941.

Dr. BRANDES. I believe that this should come before you in an outline of what the Department would propose to do under this bill.

The CHAIRMAN. Yes.

Dr. BRANDES. This shrub, the guayule, as it is known in Mexico, and now in the United States, has been used for rubber for nearly 40 years, and, therefore, the rubber manufacturing companies are thoroughly familiar with its properties; and, on the authority of the men in the rubber manufacturing industry, it is known to be a proved and usable source of rubber, including use in the manufacture of tires.

It does, however, contain a considerable amount of impurities, mostly resin, to the extent of about 20 percent, and, therefore, in using the rubber in large amounts, it would be necessary to deresinate it, which would add slightly to the cost.

Mr. HOPE. Now, right at that point, you say that this is a proven source of rubber supply?

Dr. BRANDES. Yes.

Mr. HOPE. Is the cost factor the only thing that has prevented its being used commercially on a large scale?

Dr. BRANDES. Precisely.

Mr. HOPE. In the past?

Dr. BRANDES. Yes, sir.

Mr. HOPE. And it cannot compete with the tree rubber?

Dr. BRANDES. That is correct. The cost of production under cultivation—I am speaking not of the exploitation of the wild guayule—but, the cost of production under cultivation is considerably higher than the cost of production of Pará rubber which is obtained from a tropical tree, Hevea, and is the source of more than 97 percent of our present rubber.

However, under present conditions, it appears that guayule could be used in connection with other potential sources to great advantage, if the war should go on for some years; that is, the rubber from guayule, while it will not appear on the market for several years, would be very timely when it does appear, as a means of reconstituting or revivifying reclaimed rubber and also in mixtures with synthetics.

It is felt that up to that time, other emergency sources might be used to supplement the stock pile and to permit it to be gradually expended over the period of years from now until the guayule would come into production rather than to use the stock pile up immediately.

So that this proposal of using guayule as a source of rubber is really part of a unified and coordinated plan which it is hoped will, with some tightening of the belt, take care of the rubber requirements in a reasonably satisfactory way.

The CHAIRMAN. How long does it take to grow the plant and have it ready for manufacturing into rubber?

Dr. BRANDES. It requires 1 year in the nursery under overhead irrigation and is then transplanted in the field. It requires 2 to 7 years, depending upon the circumstances and the considerations involved as to whether it should be harvested earlier at the sacrifice of tonnage per acre or whether it should be permitted to remain in the fields where there would be an annual increment of approximately 350 pounds per acre with very little added expense; mostly, just the rent of the land and a light cultivation.

The CHAIRMAN. About what would be the tonnage per acre?

Dr. BRANDES. At the end of 2 years in the field, if planted thickly, about 600 pounds per acre; at the end of 4 years about 1,620 pounds per acre on the average.

The CHAIRMAN. Have these plants been manufactured into rubber in this country to any extent?

Dr. BRANDES. Oh, yes, sir; as I said before, the rubber-manufacturing countries are all familiar with guayule rubber. They use it in the manufacture of tires, because the resin that I spoke about instead of being disadvantageous is advantageous when it is used in a small quantity in the mix, because of its plasticising properties, but if it were used in great volume it would be necessary to remove the resins.

Mr. HOPE. Does the rubber content of the plant increase with the age of the plant? In other words, is the percentage of rubber in the 2-year-old plant as heavy as it would be in the 7-year-old plant?

Dr. BRANDES. That depends entirely on the conditions under which the plant is grown. I should say that there might be a slightly greater concentration of rubber in the plant, in the older plant; but the secretion and storage of rubber is so dependent on weather conditions of the year that it is conceivable that a 2-year-old plant might have even more rubber, a higher percentage of rubber, than a 4-year-old plant.

The CHAIRMAN. Is this plant being used in any other country for the manufacturing of rubber?

Dr. BRANDES. Just in Mexico.

The CHAIRMAN. Just in Mexico?

Dr. BRANDES. Yes, sir; and that is the wild plant which is merely gathered and transported to factories where it is processed. No cultivation is practiced in Mexico.

Mr. FLANNAGAN. When it comes to cost, how does the cost compare with the cost of rubber which we have been using?

Dr. BRANDES. How does it compare with the present price of rubber?

Mr. FLANNAGAN. Yes.

Dr. BRANDES. I believe that this whole program could be effectuated at practically no cost to the Government if the present price of rubber is maintained.

Mr. POAGE. What is the present price?

Dr. BRANDES. Twenty-two and a half cents.

Mr. FLANNAGAN. How much has rubber gone up?

Dr. BRANDES. Sir?

Mr. FLANNAGAN. What advance has there been in the price of rubber since the emergency arose?

Dr. BRANDES. Well, the advance in price over the last 5 years has been—I think I shall have to check this for you—but I think it has been almost doubled. That, however, was not a sharp rise in price since the war started.

Mr. FLANNAGAN. But a part of that advance in price took place prior to the war?

Dr. BRANDES. Yes, sir.

Mr. PIERCE. How high has it gone in price?

Dr. BRANDES. Rubber has been up to almost \$3 a pound.

Mr. PIERCE. During the other war?

Dr. BRANDES. Yes; some 20 years ago.

Mr. FLANNAGAN. What about the normal price of rubber over the years; what has that been over the past 5 or 6 years?

Dr. BRANDES. I would like to ask Mr. Polhamus to answer that.

Mr. POLHAMUS. The average price of rubber from the decade 1930 to 1939 was 12.4 cents per pound.

Mr. FLANNAGAN. And it now costs around 20 to 22½ cents a pound?

Mr. WICKERSHAM. Seventeen and thirty-four one-hundredths as he has it in this statement.

Mr. PIERCE. Doctor—

Mr. PACE. You mean you are preparing to produce this rubber from this Guayule plant at the present market price?

Dr. BRANDES. Yes.

Mr. FLANNAGAN. That would be something less than 17 cents.

Mr. PIERCE. I understood from the Assistant Secretary's testimony that he did not have that hope.

Dr. BRANDES. I believe that the situation is something like this: The cost of the production of para rubber is considerably cheaper than the cost of the production of Guayule rubber and, therefore, para rubber can withstand and survive a declining price down to 10 cents, or even 6 cents, but Guayule rubber could not withstand any such price. Probably it would not survive a price below the present price of rubber.

Mr. PACE. Do I recall correctly that the normal consumption of rubber in this country is 800,000 tons?

Dr. BRANDES. The consumption of rubber has been, in recent years, about 600,000 tons.

Mr. PACE. Six hundred thousand tons?

Dr. BRANDES. Six hundred thousand to 650,000 tons. It is true that last year more rubber was brought in than that; but it was not expended. That was to build up the stock pile.

Mr. PACE. Then, as I figure here, if you were to produce 75,000 acres from this plant and your average was 1,500 pounds—you gave it from about 900 to sixteen or seventeen hundred—

Dr. BRANDES. Depending upon the age of the plant.

Mr. PACE. You would produce about 56,000 tons of rubber.

Dr. BRANDES. Yes, sir.

Mr. PACE. Which would be, you would say, almost 10 percent of a normal year's requirements.

Dr. BRANDES. Yes, sir.

Mr. PACE. But it seems like Mr. Appleby had the idea that immediately upon the cessation of hostilities, this experiment would necessarily be abandoned as uneconomical.

Dr. BRANDES. If I understood him rightly, he said that it might be desirable to maintain the nursery feature of this proposal as a sort of stand-by and insurance against future emergencies.

Mr. PIERCE. How much money will probably be recommended to the Budget? I see this authorizes an indefinite sum. What is necessary? How big a program are you figuring on?

Dr. BRANDES. That, sir, is broken down completely in this statement.

Mr. PIERCE. That is in the statement?

Dr. BRANDES. Yes, sir.

Mr. PIERCE. I thank you.

Mr. PACE. One other question: If it is to be maintained merely on an experimental basis, would it be wise to acquire land in order to carry on the program; give the Department the right to purchase and condemn land for experimental purposes?

Dr. BRANDES. I should say so, sir, up to a certain acreage, at least, an acreage sufficient to maintain adequate nurseries.

Mr. PIERCE. That would not require 75,000 acres?

Dr. BRANDES. Oh no, sir. Probably for the amount contemplated in this bill, not more than 1,000 acres.

Mr. PIERCE. Well, the Department has acquired so much land and is daily acquiring such enormous acreages—I do not know that there is any particular area where this plant grows—that I am just wondering if we can avoid that feature and put this on a temporary lease basis.

Dr. BRANDES. It is possible.

Mr. COOLEY. Does not the bill provide for that? It says to plant or contract for the planting of.

Mr. PACE. Read on down.

Mr. COOLEY. I know, but the bill confers the authority to acquire by purchase or lease, but I believe that section 2 gives or confers the right to contract for the planting of.

Mr. HOPE. Now, assuming that you have an opportunity to lease land for 5 years or 10 years, will you do that in preference to outright purchase, everything else being equal?

Dr. BRANDES. For the nurseries?

Mr. HOPE. Well, for the planting. I had in mind that for the nurseries you would purchase it.

Dr. BRANDES. Oh, for the field planting by all means, they should not be purchased.

Mr. HOPE. You are just speaking of nurseries?

Dr. BRANDES. Yes, sir. In that case it might be desirable for the Government to have title to that small acreage of land.

The CHAIRMAN. Doctor, Mr. Appleby referred to the goldenrod. Have you any information as to the possibility of using goldenrod?

Dr. BRANDES. There are undoubtedly some possibilities in the case of the minor rubber-bearing plants and of those minor rubber-bearing plants, goldenrod is one that should be considered in an extreme emergency. It happens, however, that the improved strains of goldenrod mentioned by Mr. Appleby are in existence in very small amounts, and it would take time to multiply them greatly. It would not be feasible to simply gather seed from wild goldenrod for such purposes.

The CHAIRMAN. I understood Mr. Appleby to make the statement that after the emergency, perhaps that would be an end to this proposition, because of the price being higher than normal prices on imported rubber. I am just wondering why, if we can make a success out of this, although at a higher price, why we should not continue to grow this plant and manufacture rubber in this country, and not refuse to do it, just because you can buy it cheaper in some other country.

In other words, I do not know of anything we manufacture in this country or use in this country that does not cost more than it does to manufacture or produce in other countries, and, therefore, if it is logical and possible, although at a higher price, why, it looks to me like we should continue to grow it for the purpose of manufacturing rubber in this country, which would be of interest to the people residing in the sections where it can be grown.

Dr. BRANDES. That would appear to be a question of policy, of a rather general nature, for the Congress.

The CHAIRMAN. No doubt the State Department might think it would interfere with our good neighbor policy, if we were to continue to grow and manufacture rubber in this country at the expense of some other country that we might be in love with.

Mr. WICKERSHAM. Doctor, I would like to ask a question. Would it be possible for you to avail yourself of the facilities of the C. C. C. and the soil conservation services, and the tree planting portion of the shelter program in connection with this program?

Dr. BRANDES. I believe in connection with this program it would be possible to benefit in one way or another by a large number of governmental agencies, such as those that you mention, including those that have ownership of public lands, or control of lands, such as the Bureau of Reclamation, the Indian Service, and so forth.

Mr. POAGE. Doctor, I remember having heard of the experiments being carried on in southern Russia and having seen some pictures of a shrub that they are harvesting there, and I understand that they are going to produce commercial rubber. Is that Russian shrub a relative of this, or is it something different?

Dr. BRANDES. I have seen this very shrub, guayule, in the Transcaucasian part of Russia. It does not do very well. The temperature during the winter gets quite low and it was very ragged. It had killed out there, from winter killing.

Mr. POAGE. You do not know anything about the actual production of rubber that they are carrying on in that country?

Dr. BRANDES. Not from guayule, but they do produce some rubber from a plant related to the dandelion, which is called by the name kok-sagyz.

Mr. POAGE. That is the plant I am talking about.

Dr. BRANDES. Well, there has been some rather unfortunate publicity about that plant recently. In the large-scale production of the kok-sagyz by the collective farms, the performance is not nearly as good as the record of experimental tests of it; the percentage of rubber in the roots is not more than $1\frac{1}{2}$ to 5 percent under the large-scale production and the quantity of roots produced per acre is about a half ton. So that estimating it at the highest figure in that range of rubber content, that would only be 50 pounds per acre, which is pitifully small compared to the sources we are interested in. More than that, although the Department has attempted to get propagating material from Russia in the past, over a period of some years, it has not been successful in obtaining that material from Russia.

Mr. COFFEE. Doctor, I would like to ask you what States are adapted to the production of guayule?

Dr. BRANDES. I should say that parts of California, Arizona, Texas, and possibly New Mexico would be the only States that offer any great promise for the production of this plant.

Mr. COFFEE. Is 75,000 acres the maximum production possibilities, as you see it, in those States?

Dr. BRANDES. It would be necessary to make a more extensive and more intensive survey of land to answer that question; but I believe that a considerably larger acreage than 75,000 acres would be suitable. It is likely that some areas might not be quite as favorable, with regard to soil and climate, particularly climate, as the Salinas Valley in California. It might still be possible to grow the plant in areas where the prospect of telescoping the growth of the wild plant into just a few years by forcing would not be quite so great. It might take an additional year or an additional 2 years, in these less favorable areas, but it still could be grown.

Mr. COFFEE. Does this plant require irrigation?

Dr. BRANDES. It does not require irrigation in the fog belt of southern California, or very little. In the interior land-locked valleys it would definitely require irrigation and in both places it requires a great deal of irrigation in the nursery where the young plants are forced, to make a maximum growth the first year.

Mr. COFFEE. The only land the Government would purchase would be land utilized for nursery purposes: is that the plan?

Dr. BRANDES. That would be our idea; yes, sir.

Mr. COFFEE. And the guayule would be produced under contract by individuals with a definite guarantee of a price at the end of a certain number of years; is that correct?

Dr. BRANDES. Or preferably on land leased by the Government and actually produced by the Government.

Mr. COFFEE. Well, why would it be necessary for the Government to handle the planting and growing of the guayule shrubs? Why would it not be possible for the Government to make contracts with individuals, assuring them of a definite price at the end of 2 or 3 or 4

years? Would that not be incentive enough for the farmers themselves to grow the plant without the necessity of the Government itself handling the production?

Dr. BRANDES. Just as Mr. Appleby said, if contracts were negotiated with farmers, it is likely that this would not be their sole interest and possibly not their main interest. It appears that it were done exclusively by the Government with attention focused on the emergency production of rubber with the greatest efficiency and concentration that it might better be done by the Government.

Mr. COFFEE. I am trying to visualize the Government operating 75,000 acres over four or five States, necessarily in small tracts. It would seem that the Government employees who are farming or producing and handling these crops could not utilize all of their time in the cultivation of guayule. Of necessity they would have to have a great deal of spare time on their hands, or else devote a part of their time to the production of other crops, and it would seem in the interest of efficiency and low cost, to utilize the farmers' efforts in the production of guayule under the supervision of the Government, rather than have the Government employees devote their time to the production and cultivation of these shrubs.

Dr. BRANDES. Possibly it would be better to produce the rubber in both of these ways.

I think, perhaps, as the project moves along much will be learned by experience.

Mr. ANDRESEN. Doctor, are you familiar with the growing of the plant in its wild state?

Dr. BRANDES. Yes, sir.

Mr. ANDRESEN. Does it reseed itself?

Dr. BRANDES. Yes, sir.

Mr. ANDRESEN. And, what is the method or how long does it take for the plant to mature in the wild state?

Dr. BRANDES. Depending on the weather conditions, and the weather conditions in the area where this plant is indigenous vary considerably from year to year—it takes from 8 to 20 years to mature.

Mr. ANDRESEN. Well, is the seed blown around in the wind or carried from place to place, or just dropped and a new plant grows up?

Dr. BRANDES. It is dropped, and it may be carried by rain water; although this is arid country, there are occasional deluges, which might carry the seed for some little distance. But, in the desert, the plant has such definite requirements, either because of its own discrimination in the matter of its local environment or because of competition with other plants which may crowd it out that it is restricted to very definite small isolated patches, mostly on limestone reefs or ridges, and there only on the slopes; not on the alluvial land below the slopes.

Mr. ANDRESEN. As I understood it, we have been receiving this type of rubber from Mexico for the last 40 years.

Dr. BRANDES. Yes, sir.

Mr. ANDRESEN. There must be a considerable supply of the wild rubber if they have kept gathering it for 40 years.

Dr. BRANDES. That is right; but even in its natural range it is restricted to these widely spaced or interrupted natural plantings, and in those natural plantings, the stands are very thin, because under

those arid conditions, each plant has to struggle for water and they crowd out the little seedlings, unless the seedlings happen to become established in a place where an old plant has died out.

Each plant requires a considerable area of this patch of stony land and exclusive water rights to that area.

Mr. ANDRESEN. I noticed an item in the papers the other day that in certain areas in the Far East that are now being invaded, that the natives are cutting down the rubber trees.

Dr. BRANDES. I think likely they are only cutting down the old seedling trees which only produce 350 pounds of rubber per acre. I should hope that they would save or attempt to save some of the improved high yielding clones, as they call them, of the Hevea. I do not know how much of this is just newspaper story, but they normally do cut down a great many of the old plantings of Hevea in order to replace them with the newer improved higher yielding clones.

Mr. ANDRESEN. Now, we will assume that they are cutting down the old trees, but suppose that the Japs take the rubber-growing sections of the Far East and an attempt is made to drive them out. Probably they would complete the job of cutting down all of the trees before they get out.

Dr. BRANDES. There is that danger.

Mr. ANDRESEN. In that case, in a long range program, it seems to me that we should go into this proposition very extensively to take care of our own needs for the future.

Dr. BRANDES. The Government has a long range program which contemplates the development of a very large plantation Para rubber industry in the Western Hemisphere and the Government has been working on that for 19 months, since July 1940, and has made a great deal of progress. By cooperative agreements with 13 Latin-American countries, the Department of Agriculture has established scores of nurseries and planted some eight to ten million trees and has obtained bud wood of these superior strains or clones that I mentioned, the high-yielding and disease-resistant material, which comes in the form of bud wood to be budded or grafted on these eight to twelve million trees, and that work has progressed very actively for 19 months, so that the prospects are that a good bit of the Hevea plantation rubber industry will be brought back to the new world.

Mr. ANDRESEN. Have some of the tire companies been conducting experiments and planted large acreages of rubber in South America?

Dr. BRANDES. That is right. The Goodyear Rubber Co. has planted rubber in Costa Rica, some in Panama; the Ford Motor Co. has planted on the Tapajoz River, which is one of the southern tributaries of the Amazon; the Firestone Rubber Co. has 70,000 acres of rubber plants in Liberia, half of which is now in tapping.

Mr. ANDRESEN. How many years does it take for a regular rubber tree to produce or grow before they can tap it?

Dr. BRANDES. About 5 years in the plantation following 1 or 2 years in the nursery; but, of course, the amount of rubber obtained in the first year's tapping is not great. It increases rapidly, however.

Mr. ANDRESEN. Do those rubber trees grow in Mexico?

Dr. BRANDES. Only in southern Mexico; Veracruz and states in that vicinity, southward.

Mr. ANDRESEN. Tropical areas and places where there is plenty of rainfall?

Dr. BRANDES. Oh, yes. High rainfall is a definite requirement for the Hevea or Pará rubber tree.

The CHAIRMAN. Doctor, can you give any information about the amount of money that will be necessary to carry out the purposes of this bill?

Dr. BRANDES. I shall have to check this. May I ask Mr. Polhamus to answer that question?

The CHAIRMAN. Yes.

Mr. POLHAMUS. The total expenditures, through the year 1948, if this were continued, would be approximately \$13,546,000.

The CHAIRMAN. That is, for planting 75,000 acres?

Mr. POLHAMUS. No. Pardon me. I was reading the wrong figure. It is \$22,223,000 on a 75,000-acre basis.

Mr. ANDRESEN. Would there be any returns for the rubber you might produce from the area?

Mr. POLHAMUS. During that time you would receive, at present prices, about \$10,900,000 for the rubber that was produced. So your net costs to the Government to June 30, 1948, would be \$11,290,000.

Mr. POAGE. How much of that is it proposed to pay the Intercontinental Rubber Co.?

Mr. POLHAMUS. I am glad you brought that question up, because that does not include any payment to the Intercontinental Rubber Co. That has to be added on to those costs.

Mr. POAGE. That is going to be a substantial sum, is it not?

Mr. POLHAMUS. I do not know what that will be.

Mr. POAGE. Is not that actually the whole heart of the thing? We cannot move until we buy them out?

Mr. POLHAMUS. No.

Mr. POAGE. We do not have any seed unless we get them from that source; is that not right?

Mr. POLHAMUS. That is right.

Mr. POAGE. And they have got all of the processes, and they have got all of the records; they have got everything that we have got to have before we can move. In other words, we cannot move until we have bought out the Intercontinental Rubber Co.

Mr. POLHAMUS. Not if we are going to move rapidly.

Mr. POAGE. Then, how much does it require? This committee would like to have some idea as to what is involved in buying them out, because that is really the biggest thing involved in it as I see it.

Dr. BRANDES. I believe that there have been some conversations, some preliminary conversations, on that subject between a committee appointed by the Under Secretary of Agriculture and representatives of the company; but ultimately it is a matter that would appear to be properly presented to the Bureau of the Budget, and I do not know that that has been done yet.

Mr. COOLEY. Would it not be well to ascertain that situation before considering the matter further, or considering this bill further? It seems to me that if Congress goes on record as favoring this experiment, that it might put itself in a position of having to pay an enormous price for the rights of the Intercontinental Rubber Co.

Dr. BRANDES. That would appear to be a natural or logical sequence.

Mr. COFFEE. One more question in that connection. If you expect the cost to be \$22,000,000, and you have a return of \$10,000,000, that would indicate that the cost of the rubber would be around 45 cents a pound, would it not? That is what the Federal Government's cost would be.

Mr. POLHAMUS. That cost of \$22,000,000 includes the construction of the necessary factories and equipment, and the factories and equipment would still be on hand.

Mr. COOLEY. Including the nurseries.

Mr. POLHAMUS. Not only the nurseries and the nursery land, but also, in order to extract the rubber from the shrub, you have to put up factories, so that that figure includes the construction of several factories for extracting the rubber from the plant.

Mr. COFFEE. Are there not any factories at the present that can be used to process this rubber?

Mr. POLHAMUS. Only one in this country.

Mr. HOPE. However, you would have the fact that these factories would be worthless, would they not, at the end of this period if we dropped the experiment? You would have your money in something that you could not get it out of.

Mr. POLHAMUS. I might say, in one other explanation of this, that this \$10,000,000 worth of rubber produced at that time is only produced from one-fourth of the acres. That is, in compiling this set of data we contemplated that we would put the program over on to a 4-year basis. That is, at the end of the fourth year you would harvest the rubber from one-fourth of your acreage. In these figures you have extracted the rubber from one-half of your acreage, so that one-half of your rubber would still be left in the field at that time.

Mr. HOPE. But if we were getting rubber at 10 or 12 cents a pound and the cost of producing this is 20 cents a pound, we will say, we probably would not go ahead with the experiment at that time. We would probably drop the whole thing.

Mr. POLHAMUS. I have provided in these tables the discontinuation contingency to show how this project might be discontinued at the best advantage of the Government.

Mr. PIERCE. But at the present price of rubber it might be a continuous process.

Mr. POLHAMUS. If the present price of rubber continued, then this might continue, if it were so desired.

Mr. PIERCE. I think that that is a fair statement.

Mr. COFFEE. Would it be possible to utilize existing factories to some extent in processing this guayule, since they will be unable to get rubber from their present sources of supply?

Mr. POLHAMUS. I think you misunderstood me when I used the word "factory." When I spoke of factory, I meant plant to process the shrubs. As this shrub is gathered it is ground and put through a series of pebble mills, and that is what I referred to as a factory, not the manufacturing process of the rubber.

Mr. HOPE. I would like to ask Dr. Brandes another question. As I understand, the estimated cost is about 20 or 21 or 22 cents a pound for producing this type of rubber.

Dr. BRANDES. In the neighborhood of 20 cents.

Mr. HOPE. That is what these figures are based on as to costs?

Mr. POLHAMUS. Yes, sir.

Mr. HOPE. Well, what hope is there of developing a better type of plant and better methods of cultivation? Is there any probability of anything being done along those lines to reduce the cost over a period of years?

Dr. BRANDES. There does exist that possibility, and it would be wise for the Government to continue research in that direction.

Mr. HOPE. Within the next 4 or 5 years, while this project is going on, do you think that you will likely be able to reduce the cost very much?

Dr. BRANDES. I think it is too much to hope that it could be done in that length of time.

Mr. HOOK. May I ask what the present acreage of guayule plant in the United States is today?

Dr. BRANDES. Five hundred and forty-five acres of shrubs in the field.

Mr. POAGE. That all belongs to the Intercontinental Rubber Co., does it not?

Dr. BRANDES. Yes, sir.

Mr. POAGE. Let me ask for a little further information, because we are facing right here something that is going to give us a whole lot of criticism unless we act with a little bit of common sense and a little bit of business judgment about this thing.

Doctor, are you on that subcommittee under the Secretary, which the Secretary appointed, that you mentioned?

Dr. BRANDES. Yes, sir.

Mr. POAGE. Who have you discussed this with as representing the Intercontinental Rubber Co.?

Dr. BRANDES. Just with the vice president, Mr. Atwater.

Mr. POAGE. I think it might not be desirable for you to make public the figures that you have got; but have you got figures from which we can get an idea as to what the cost will be?

Dr. BRANDES. Yes, sir; the figure that they have proposed is the actual cost to them of the intangible assets, which constitute the long period of research and the development of processes, including some patents, I believe, and their tangible assets, which are improved real estate with buildings and factories, and so on. They have stated that they will turn that over to the Government at the actual cost to them, without interest.

Mr. PACE. They understand that under legislation recently enacted by the Congress the Government can take over all those things, whether they like it or not, and operate them for the period of the emergency.

Dr. BRANDES. I have seen a report of that kind.

Mr. PACE. You understand that Congress has enacted legislation which provides that where an owner of any tangible or intangible rights fails to go along the Government has the right to step in and take over the property and operate it for the period of the emergency and settle with them on a fair basis.

Mr. ANDRESEN. But they must settle.

Dr. BRANDES. If it is possible, it seems it would be better to reach an agreement without such a procedure.

Mr. PACE. I think that that is contemplated.

Mr. HOPE. This bill, of course, authorizes taking by condemnation.

Mr. COOLEY. Could you tell us something about the progress that is being made by the Intercontinental Rubber Co. with this particular plant? Have their operations been profitable, or are they still in the experimental stage?

The CHAIRMAN. Over what period have they been operating; how many years have they been operating?

Dr. BRANDES. They have been carrying on the experiment for a long period of time, something like 30 years.

Mr. COOLEY. This one company?

Dr. BRANDES. Perhaps a little more than 30 years.

Mr. COOLEY. This one company has been carrying on experimental work for 30 years and only have planted now 450 acres?

Dr. BRANDES. They have had a much greater acreage in the past.

Mr. COOLEY. What was the cost with the reduction in the acreage?

Dr. BRANDES. Simply that the plant was not on a competitive basis with the low-cost tropical source of rubber.

Mr. COOLEY. Then the assumption must be that their operations have not proven profitable up to the present time?

Dr. BRANDES. I should say so.

Mr. COOLEY. Now, did the idea of this Government experiment originate with the officials of the Government or did it originate with the Intercontinental Rubber Co.?

Dr. BRANDES. Well, the Government; the Department of Agriculture has been interested in guayule since the early 1920's.

Mr. COOLEY. I know, but who is responsible for initiating these negotiations which led up to the proposal of the Intercontinental Rubber Co. and this legislation? Is it a matter of the rubber company seeking to put an unprofitable experiment off on the Government, or did it originate with a Government department?

Mr. ANDRESEN. The Japs originated it.

Mr. COOLEY. I know that they are probably responsible for bringing it more acutely to our attention.

I am in earnest about that. Is this an effort on the part of the Intercontinental Rubber Co. to unload an unprofitable experiment on the Government, or is it an honest effort on the part of the Government to take care of the rubber situation in this emergency?

Dr. BRANDES. I do not think that the idea was originally promoted by the company. It is rather difficult to say just how it did originate; but I first became conscious of it through the publicity of the local chamber of commerce in Salinas where there were various members of the chamber of commerce who I happen to know did not see eye to eye with the company. So it is not likely that they were inspired by the company.

Mr. COOLEY. How old is this company?

Dr. BRANDES. Well, I know that it was in operation in 1908; possibly earlier than that.

Mr. COOLEY. And has it continued in business experimenting with this particular plant since 1908 up to the present time, and at the present time is only operating 545 acres?

Dr. BRANDES. The company operates on a much larger scale in Mexico where it exploits the wild rubber and has three factories.

Mr. POAGE. Is this the same company that had a plant at Marathon, Tex.?

Dr. BRANDES. No, sir.

Mr. COFFEE. Doctor, I am anxious to encourage the production of this guayule in the United States; but I am wondering if it would not be possible to utilize private enterprise in this undertaking and have the Government step in to subsidize the production of rubber. In other words, if the price were profitable to the producers, you could get plenty of farmers to grow this guayule plant. If we could establish a price level that would last for a number of years, would it not result in less cost to the Federal Government than it would if the Government took over the enterprise and handled it all? Has there been any consideration given to the thought of establishing a definite long-term price level on this product?

Dr. BRANDES. I believe it has been considered, but it is in conflict with the present policies of the Department of Agriculture, which seeks to take the long view of the cost of the supplies of rubber for the benefit of the consumer.

Mr. COFFEE. Well, I am thinking about the enormous cost to the Government in producing the rubber and handling the production of it. It seems to me that that would result in excessive costs, whereas if the price could be established, the farmers themselves would be glad to produce rubber or anything else on which they could be assured of a profit.

Dr. BRANDES. Admittedly, this should be regarded as an insurance for which all of the taxpayers pay a premium. On the other hand it may not be a very high premium. It depends upon the termination contingencies. If it is carried through to completion and the Government produces the rubber and sells the rubber, then these become temporary expenditures by the Government rather than costs to the Government, because it is true that there will be income from it which will in a considerable measure defray those costs.

The CHAIRMAN. Doctor, has the department been doing any experimental work in connection with this plant up to this time or prior to this time?

Dr. BRANDES. Yes, sir; but on a rather small scale. The Government has had plantings in several parts of southern California and in Arizona and in New Mexico.

The CHAIRMAN. The question has been brought out that apparently this rubber company is very much interested at this time in unloading this proposition on the Government. I noticed in Mr. Anderson's statement a while ago he stated that he had been trying to work with the Department on this proposition for some time but up until right recently he did not get any cooperation or assistance from the Department, which apparently would indicate to me, at least, that someone else is perhaps more deeply interested in this proposal than the Department, until right at this time.

Mr. ANDRESEN. As the chairman knows, not only on this, but many other lines, we have tried to encourage domestic production but have not received cooperation.

The CHAIRMAN. The serious question is whether we are justified in spending this amount just in the next year or two on account of this

emergency, and then because of the good-neighbor policy have it go out of the window.

Mr. ANDRESEN. Yes; the emergency has forced us into an experiment to determine whether we can produce rubber ourselves, because we do not know how long this war will last. If we are going to spend \$56,000,000,000 this year to win the war and probably twice as much next year—God only knows how much it is going to cost—we may find that all of the rubber trees in the Far East have been cut down before we get through the emergency.

Mr. COOLEY. Mr. Chairman, in connection with what you were just saying, I should like to ask the Doctor if I understood him correctly a moment ago when I understood that he said that this situation first came to his attention from the chamber of commerce out in California. Doctor, is that correct?

Dr. BRANDES. That is correct.

Mr. COOLEY. Now, if the Government has been experimenting over a number of years with this particular plant and this Intercontinental Rubber Co. has been experimenting with it over a number of years, why has it not occurred to the Department of Agriculture down here that it would be a good idea to enlarge the experiment as contemplated by this bill until some secretary of a chamber of commerce gave birth to the idea that they should pass it on to the Department?

Dr. BRANDES. Well, there are two answers to that question. One is that the Department of Agriculture has conducted experiments to the extent its resources permit, and the other is that this whole matter is reflected in a very different light since the second world war started than it was in prior to that time.

Mr. COOLEY. I can appreciate the fact that our need for rubber is more acute at the present time than it ever has been before; but I still am wondering why this legislation is brought here without the committee being given any information regarding the cost of these patents and the balance sheets of the company itself showing how profitable or how unprofitable the operations of the company have been over the period of years in which it has operated.

Now, the land upon which many of these bushes are to be planted is a tangible thing and has a value that can easily be ascertained, but when you start dealing with the value of patents, why, that is an intangible thing which may have an imaginary value or an actual value, or may not be worth anything at all.

Now, I would like to know, before I give my approval to a thing of this kind, just how far we are going on the cost of these patents which may be unprofitable things, or may be profitable; may be worth something, or may be worthless.

Dr. BRANDES. It may present some difficulties; but I should think that the committee could call in representatives of that company to state how they value their tangible and intangible assets.

Mr. COOLEY. Why has not someone in the Department done that?

Dr. BRANDES. The Government is in this position, that until such legislation is passed, it has no means of negotiating or offering anything for those assets.

Mr. COOLEY. No; but you could certainly ascertain their value, and not rely on the statements of the company.

Dr. BRANDES. I should think that it could be done informally; I should think there could be no negotiation until there is authority to negotiate provided by this bill.

Mr. COOLEY. Would you not have authority under existing law to negotiate with the company for the purchase of or ascertaining the fixed values which they have placed upon the tangible and intangible assets of the company?

Dr. BRANDES. They have already done this. They say it is what they have put in.

Mr. COOLEY. Now, we do not know what they have put into it. They may have some imaginative or fanciful values attached to patents. It seems to me that the Department could very well negotiate with them and come up here and tell the members of this committee just what this thing is going to cost.

As has been pointed out, this may be an experiment which can be started, and in 2 years the emergency may pass, and we may abandon the experiment and turn back to this company everything we have taken from it or to somebody else at a nominal cost.

I do not see how we can intelligently pass upon the question unless we know something about the costs involved and the value of the thing that we are about to buy.

Dr. BRANDES. That may possibly develop when you question other witnesses.

Mr. POAGE. Is there a representative of the company here this morning?

Mr. ANDERSON. Mr. Chairman, there are two representatives of the Intercontinental Rubber Co. here and they say that they are willing to be heard on that question.

Mr. HOPE. Mr. Chairman, before we do that, I would like to make this inquiry: As I understand it, this bill has the approval of the Department and also the Bureau of the Budget. Is that correct? I wonder if the report of the Bureau of the Budget contains any reference as to the amount expected to be paid for the rights of this company.

The CHAIRMAN. We have a favorable report from the Department, but I do not think any amount is set forth in that report.

Mr. HOPE. Is any amount set forth in the report of the Bureau of the Budget?

Mr. ANDERSON. There is no figure set forth in the report of the Bureau of the Budget.

The CHAIRMAN. And you have no report from the Department as to the amount that they would be called upon to pay this company?

Mr. ANDERSON. No; I do not have.

Mr. HOPE. I would like to ask Dr. Brandes one more question before he leaves. We are going to hear representatives of the company. This bill authorizes you to operate anywhere within the Western Hemisphere. Do you expect to conduct any operations outside of the United States?

Dr. BRANDES. That was a change in the original bill, I believe, and it was put in because it might offer the possibility of using some of the lands along the west coast south of the border of Mexico. I would say that there is very little possibility that guayule could be produced in other parts of the Western Hemisphere unless it were in

corresponding latitudes south of the Equator and we have no definite information about those possibilities. That would be in Argentina.

Mr. HOPE. You have in mind that you want to go to Mexico to conduct some of your experiments?

Dr. BRANDES. It offers a chance in case there is difficulty in finding enough exactly suitable lands for this rather discriminating plant, to somewhat increase the total amount that may be produced from it.

Mr. HOPE. You would not go there though until you were satisfied that you could not get all available acreage or all acreage that you needed in this country?

Dr. BRANDES. That is correct.

The CHAIRMAN. As I understand, this bill would permit you to carry on in other countries than the United States, but the purchase does not include this company's interest in Mexico where they have been making their money?

Dr. BRANDES. That is the way it reads, sir.

Mr. COOLEY. Doctor, did you say that Goodyear, Firestone, and Ford had been experimenting in the rubber business and had planted a large number of acres of rubber trees in other sections and in other countries?

Dr. BRANDES. Yes, sir; the Pará rubber tree.

Mr. COOLEY. And their operations have been right expensive, have they not?

Dr. BRANDES. The operations of the Firestone Co. have been quite extensive.

Mr. COOLEY. Do you know whether or not they have experimented with this particular plant?

Mr. ANDERSON. May I interrupt there, Mr. Chairman? I want to say to the members of the committee that I have here in my possession, which I expect to present to the committee, letters from the president of the Goodyear Co., the president of the Firestone Co., and the president of the Goodrich, and the president of the General Tire & Rubber Co., all advocating action on this matter. I want to read those to the committee for their benefit when my time comes.

Mr. COOLEY. I would like to follow that with one other question.

Do you know whether those companies which have been mentioned have in the past experimented with this particular plant and the feasibility of producing rubber here in this country?

Dr. BRANDES. I believe not. They have all been interested in the production of crude rubber from the Pará rubber tree, but, so far as I know, they have no interest in the guayule plant.

Mr. COOLEY. So what we are undertaking to do under this particular bill would be in opposition to their interests, would it not?

Dr. BRANDES. Mr. Anderson just said that they were favorably disposed.

Mr. COOLEY. I know that they are in accord with the idea at the present time, because of this emergency; but if this experiment discloses that it is profitable to grow this plant in this country, they might find themselves liquidating their holdings in other countries; is that not true?

Dr. BRANDES. I think nothing would please the rubber manufacturing companies better than that if such a thing were possible; that is, the economical production of rubber within the United States.

However, I think they are persuaded that it is not possible under ordinary conditions.

Mr. COOLEY. If they are persuaded that it is not possible under ordinary condition, should not that give us reason to pause before proceeding with this experiment on the scale contemplated by this bill?

Dr. BRANDES. It would, if we were not in a war.

Mr. COFFEE. Dr. Brandes, I have one question in connection with the acquisition of these properties. Would this bill permit the purchase of the properties of the Intercontinental Rubber Co. in Mexico?

Dr. BRANDES. I believe not.

Mr. COFFEE. I notice in the first section that the Secretary is authorized to acquire by purchase, and then it goes on in the last few lines of that section to say "Properties, processes, records, and data as are necessary to such operation."

Dr. BRANDES. But, that is modified by the words "growing and harvesting." Their operations in Mexico at the present time are not of that character.

Mr. COFFEE. It is not contemplated to purchase the plant of the Intercontinental Rubber Co. in Mexico?

Dr. BRANDES. No, sir.

Mr. COFFEE. Is it your view that it would be impracticable for the Government to encourage the production of the guayule in this country by subsidizing the cost to the producers and encouraging the companies that are now in existence by providing nurseries and such other assistance as could be done practically by the Government?

Dr. BRANDES. I am convinced that it would be detrimental to the general interest to do that. We feel that this is strictly an emergency project.

Mr. COFFEE. You do not feel that we would increase the production materially if we set a definite price level of say 22 cents a pound or even more to the producers?

Mr. COOLEY. Or even 25 cents.

Mr. COFFEE. Yes; you do not feel that the producers would increase the production at a reduction in the cost to the Government by such a plan than by having the Government take over the entire production, processing, and operation of the entire industry?

Dr. BRANDES. I am almost certain that it could not be done profitably by a miscellaneous assortment of private interests, because when you read this prepared statement, I think it will become evident that the procedures in the producing of rubber from this plant effectively and efficiently are so complicated that it would take a long time to educate farmers to carry on that work efficiently.

Mr. COFFEE. Then it is your plan to have the shrubs produced by employees of the Government?

Dr. BRANDES. Yes, sir.

Mr. COFFEE. Now, about what portion of their time during the entire year would be utilized in the cultivation and handling of that crop? Would it not be a very small percentage of their time that would be so utilized?

Dr. BRANDES. Well, the time of the administrators of the project would be required for a long time to the extent of 2 official days every day, I should say, throughout the year; but as to the labor requirements—that is, they who would constitute the bulk of employees—that

would not be continuous. There would be peak loads and then there would be long periods when little labor was needed.

Mr. COFFEE. I believe that there is a little confusion on the actual production of the plants. Are you going to make a contract with the farmer to produce so many acres of this guayule at a certain definite price, or are you going to put him on a salary basis?

Dr. BRANDES. Are you speaking now of the administrators or of the actual producers?

Mr. COFFEE. I want to get right down to the farmers. How are you planning to deal with the farmer himself who produces the guayule; are you going to put him on a salary basis?

Dr. BRANDES. In part, and perhaps a greater part of it would be done by leasing the land from the farmers and then employing the farmers at daily wages to carry on the work.

The CHAIRMAN. Mr. Coffee, I believe what you have in mind in connection with your question is, if it has been impossible for this rubber concern to make a go of it because of the price of domestic rubber, that if it is possible to give them a price of, say, 25 or 30 cents, or whatever is found to be necessary out of their experience in this field for 30 years, whether they could not do it really cheaper than the Government even at such agreed prices.

Mr. COFFEE. That is right.

Mr. COOLEY. If they could not operate profitably before as their experiments have shown, what is there to lead us to believe that they could operate profitably now?

Mr. PACE. Mr. Chairman, may I ask a question?

The CHAIRMAN. Yes.

Mr. PACE. Doctor, as I understand, rubber is one of the most critical items in the present world conflict; is that right?

Dr. BRANDES. It is close to the top among the strategic materials; yes, sir.

Mr. PACE. And we are now engaged in a World War where not only Rome is burning, but the whole world is on fire. Pretty soon there will be millions of Americans who would be glad to give \$100 for an automobile tire. With the program to be submitted to Congress by the President in about 30 minutes involving expenditures of about \$56,000,000,000, in which rubber is one of the most critical items, do you not think that we had better get this program going and going just as quickly as we can?

Dr. BRANDES. I should say, sir, yes; with regard to the time [interrupted]—

Mr. PACE. I want to ask right there: Now, when would you have to have this bill to be able to plant these seed? In other words, how long a delay can you sustain and about what time do you have to put these seed into the ground in order to get this rubber growing?

Dr. BRANDES. I am very glad that you raised that point. If the bill were passed immediately and funds were provided tomorrow, it would not be one day too soon in order to prepare the land, acquire the land, prepare it, put in the overhead irrigation and get the seed planted, because it should be done by March.

Mr. PACE. Then I understand from your investigation of this matter, in connection with the welfare of this nation and the conduct of this war, this bill should be passed at the earliest possible moment?

Mr. BRANDES. That would be my definite recommendation.

Mr. PACE. And this material is in a position like hundreds of others today which the Government must have. It is not a question of expense. It is a question of getting the material to conduct the war?

Dr. BRANDES. I think that expresses the situation very accurately.

Mr. COOLEY. Do you mean to suggest, Doctor, that we should undertake to embark upon an experiment of this scope and character without stopping to inquire about the feasibility of it and the cost involved?

In other words, are you taking the position Mr. Pace has just taken, that regardless of the cost, we should embark upon an experiment which has been in operation for more than 30 years and which we are not able to determine whether it has been operated successfully or unsuccessfully?

Dr. BRANDES. There is no question about the feasibility of producing rubber at around 20 cents a pound by the Government. I would say that probably the price of rubber will be far higher than that before the end of this year.

Mr. COOLEY. Why not follow Mr. Coffee's suggestion and set a price for rubber at 25 cents, 30 cents, or 40 cents, and encourage private business to go forward and produce this rubber?

Dr. BRANDES. Because the maximum production contemplated under this bill will fall far short of our requirements.

Mr. COOLEY. It represents only 10 percent of our requirements.

Dr. BRANDES. We are going to have to go to foreign countries to get wild rubber for the purpose of reviving reclaim and for mixing with synthetics, and we have no control over the price that will be demanded by those countries. There will be cost of production plus some profit, and I should say that the cost of that rubber will be double or more the cost of this rubber.

Mr. COOLEY. All right; suppose we start out and acquire the nurseries and provide the plant stock and then encourage the farmers in these particular localities to produce the rubber giving them an assurance of a market that will be profitable, based upon experience, and let them produce the rubber than have the Government go out and buy the farmers' land and then turn around and hire the farmers to operate the farm, and devote only a small portion of their time to the cultivation of this particular plant, whereas, as pointed out by Mr. Coffee, they could cultivate this plant along with other crops, probably more economically than the Government could go out and hire a mass of men to sit around and watch these little plants grow, while Rome is burning and the world is on fire.

Dr. BRANDES. The details of organization that would be required to do it in that way would mean that we would not take full advantage of this opportunity that is offered to supplement our supply of rubber which every one agrees is badly needed.

Mr. ANDERSON. Mr. Chairman, may I interject a comment here?

The CHAIRMAN. Yes.

Mr. ANDERSON. With the permission of the committee, I would like to read a paragraph taken from the hearings on this same subject before the Committee on Military Affairs of the Senate at which time Mr. Jesse Jones, whom we all have regard for, was present.

The CHAIRMAN. What time was that, I mean, about how long ago?

Mr. ANDERSON. December 10. Jesse Jones, in answer to various questions put to him as to the desirability of acquiring rubber, made the following statement, and I would like to read the paragraph to the committee.

Of course, whatever quantity we will get will help. I think we will get some more rubber; it may have to go around the world, the other way, and experience some more hazard, but I think we will get some more rubber; but even so if it is feasible to get rubber this way, I think it should be considered very seriously, and when it comes down to the actual need for the rubber, it really does not make any difference whether it is 30 cents or 50 cents a pound, if you need it, so we should consider this procedure seriously, if we have to have it.

That is the attitude expressed by Mr. Jones.

Mr. COOLEY. I am thoroughly in accord with the expression of Mr. Jones; but I still think we are going a little bit too fast when the Department comes up here without any figures as to the costs involved.

Mr. PACE. The figures are here except as to what we might have to pay the Intercontinental Rubber Co., and under the legislation recently enacted if a fair price is not accepted, under the present statutes, the President can walk in and take everything they have and settle with them through the courts. There is no way in the world by which the Intercontinental Rubber Co. can get one dime more than they can prove their stuff is worth, is there?

Mr. COOLEY. Except by negotiating a contract.

Mr. PACE. There is no earthly need in delaying the consideration of this bill for weeks and weeks, to carry on negotiations with the Intercontinental. Do you think so?

Mr. BRANDES. I do not think so; no, sir. I would hope that it would be possible to arrange, or to arrive at some agreement, promptly.

Mr. PACE. And, if the doctor's plan was one of trying to set up a subsidy here to the farmers to cultivate a plant of which they know nothing, you probably would have to put a man on every farm and have him sit there with the farmer and show him how to plant and cultivate this plant, would you not?

Dr. BRANDES. Yes, sir.

Mr. PACE. And it would probably cost as much to educate a farmer as to how to produce the plant as it would to produce it yourself under your own direct supervision with expert labor that has been engaged in this work for years, or more. I should say.

Mr. COOLEY. Where do you get that labor?

Mr. PACE. Mr. Appleby testified, before the gentleman from North Carolina (Mr. Cooley) came in, that there was a special provision in this bill which would permit the employment of personnel without regard to the civil service and without regard to residence. I believe that explanation was made off the record.

Mr. HOPE. Mr. Pace, will you yield right there?

Mr. PACE. Yes.

Mr. HOPE. On this question of how much we are going to pay the Intercontinental Rubber Co., is not that a matter that will have to be finally decided by the Appropriations Committee anyway?

Mr. PACE. Very probably it will have to be determined by the Court of Claims.

Mr. HOPE. Then I assume that some arrangement will be made and a price will be agreed upon but that those deals cannot be consummated finally until the Committee on Appropriations recom-

mends the appropriation of the money. It seems to me that that is the proper place perhaps to raise this question as to how much money is going to be required or how much money we are going to pay the Intercontinental Rubber Co.

Of course, if we had the information, I think it would be very helpful, but after all nobody has any way of making a deal or even making an offer on the part of the Federal Government until we pass this legislation.

Mr. POAGE. Mr. Chairman, I think we recognize the Intercontinental Rubber Co.'s connection with this. I fully agree with Mr. Pace that to get this rubber we have got to pay whatever it takes to get it, but that does not mean that we have got to sit by and let anybody hold us up. I am not suggesting that anybody is trying to; but I am suggesting that we are in an emergency, and we must give some thought to making a trade with the Intercontinental Rubber Co. We are fully aware of the fact that there are some articles that we have got to have but there is no excuse for us paying more than they should cost or there is no reason for our putting ourselves in a position where there is no excuse for our having done it. The mere fact that a thing is needed does not excuse us in paying twice what is a reasonable price and what every reasonable man knows that we ought to pay for a given piece of property. As Mr. Pace has pointed out, we do not have to pay twice what it is worth. We can get this property at a fair price and they ought to have a fair price. They ought not to have more. They ought not to make a profit off of the Government business in the extremity of the Government at this time but, they should be paid a fair price for whatever they have that we take.

I am merely trying to suggest here that we do not want to go ahead and offer or simply say that we are going to pay what ever anybody asks us for this product simply because we need it.

I do think now is the time to suggest that in our negotiations with the Intercontinental Rubber Co., that we recognize that we should not pay more than a fair price, and if we are requested to pay more than a fair price—and I am not charging that the company is going to ask us to pay more than a fair price—I do not know what they are asking. If they offer it to us at a fair price, we should pay it. If they do not do so, as Mr. Pace suggests, we can take the operations over and settle with them at whatever the court says is a fair price.

Mr. PACE. We have plenty of statutes to cover that now, and there is no use in changing this bill to cover it.

Mr. POAGE. But, the committee ought to have some idea as to what the price is. There is no reason why, while we are here, we cannot be told something about it. In other words, I do not want to be put in the position of saying that I voted for a bill when I have no conception of what it is going to cost.

We are told that \$22,000,000 will pay certain parts of the cost, but we are told that that is not all of the cost and we have no idea whether it is 10 percent of the cost or 90 percent of the cost, and the witnesses have not indicated whether it is 10 percent or 90 percent.

Mr. ANDRESEN. Will the gentleman yield?

Mr. POAGE. Yes.

Mr. ANDRESEN. The gentleman is going to vote for a good many bills where he does not know how much they are going to cost.

Mr. POAGE. I am afraid so; but I am not as directly responsible for some of those bills as I am for bills which come out of this committee.

Mr. COFFEE. I would like to ask how long after you have planted the seed in the nursery, before the plants are put out on the farms for production?

Dr. BRANDES. Ten to twelve months.

Mr. COFFEE. So, in other words, the need is to provide these nurseries?

Dr. BRANDES. Exactly.

Mr. COFFEE. The committee could approve legislation to take care of that immediately and no time would be lost. As to purchase of land and factory and methods to be pursued in transplanting the shrubs from the nursery to farms for production of guayule, that could be considered later in separate legislation if necessary.

Mr. ZIMMERMAN. I would like to ask a question.

Mr. HOPE. I would like to have an answer to that question.

Dr. BRANDES. If I understood you to mean that that could be done without negotiating and settling with the company, I believe it would not be possible, because some of the processes and techniques used in the developing of the nursery are among the so-called intangible assets of the company that developed them.

Mr. COFFEE. Well, under the existing authority you could obtain those processes, as I understand it, and if we gave you authority to construct and operate these nurseries, you could proceed to do that.

Dr. BRANDES. Under the authority of this bill.

Mr. COOLEY. I thought that they were already doing that. I thought you told the committee that you had already been experimenting with this particular plant for the past several years. Now, if you have been carrying on experimentation in a particular manner, then what is contemplated in this bill is only an enlarged scale of that. Could you not just extend your hothouses and your nurseries and produce these plants and then let it be determined at some later date as to the feasibility and the method of taking care of this other matter.

Mr. PACE. Where would they get the seed?

Mr. COOLEY. They have been getting all of the seed that they wanted for experimental purposes.

Dr. BRANDES. We have been getting seed for experimental purposes, but that is different from the large scale operation of this project during 2, 3, 4, or 5 years.

Mr. COOLEY. Where do you get those seed?

Dr. BRANDES. There is only one source of supply of improved strains of guayule seed and that is from the Intercontinental Rubber Co.

Mr. COOLEY. Where was this corporation created; where was it incorporated?

The CHAIRMAN. Mr. Cooley, we expect to have the gentlemen representing the corporation before us.

Mr. COOLEY. I would like to have an answer to that.

The CHAIRMAN. We will have them here tomorrow morning.

Dr. BRANDES. I do not know; I cannot answer that question.

Mr. HOPE. I would like to ask Dr. Brandes whether he thinks it would be a fair price if we paid what is mentioned here as the offer that the company has made, that is, pay them the money that they have

actually spent in developing this industry. I do not recall the exact amount.

Mr. COOLEY. Which includes the tangible and intangible assets. That is what he said.

Mr. HOPE. Do you think that that is more than a fair price?

Mr. COOLEY. I would say at this time that it would be only fair to us to pay the actual cost of the tangible and intangible assets, if we are convinced by looking at the historical operations of the company and experiments of the department, that this experiment is a feasible thing. I certainly would not fuss over a small amount of cost, and I, of course, appreciate the importance to the public as much as Mr. Pace or anyone else does, but to just come up and not have the benefit of all of that experience in passing upon it—I do not think that we should do that.

Mr. HOPE. My question was leading up to this suggestion: Why should we not, in view of the fact of this emergency, put a provision in this bill that the amount that is paid to the Intercontinental Rubber Co. shall not exceed what they have actually expended?

Mr. PACE. By all means, I think that that should be inserted.

Mr. HOPE. Not to exceed that. That does not mean that we will have to pay that.

It seems to me that the Federal Government would be protected if we put that provision in the bill.

Mr. ZIMMERMAN. I would like to ask a question. I believe you stated that it takes about 10 months to get the plants up, plant the seed and get the plants up, get them to growing.

Dr. BRANDES. Up to the point where they can be lifted from the nursery and transplanted to the fields.

Mr. ZIMMERMAN. How long does it take you then to grow a plant that could be properly utilized in the manufacture of rubber?

Dr. BRANDES. That is a question that depends altogether on the contingencies of the moment. It could be harvested in 2 years; after 2 years in the field, and as I stated earlier, about 900 pounds of rubber per acre could be extracted from the 2-year-old plants.

Mr. ZIMMERMAN. Well, you could not get any rubber short of 3 years?

Dr. BRANDES. Except from the seedlings which are in existence to-day, which are sufficient to plant only 2,000 acres.

Mr. ZIMMERMAN. Well, that is inconsequential in amount.

Dr. BRANDES. Yes, sir; but every little bit helps.

Mr. ZIMMERMAN. I understand. What I am getting at is this: It would take you 3 years, then, to produce any appreciable amount of rubber.

Dr. BRANDES. Yes, sir.

Mr. ZIMMERMAN. And this country is in great need of rubber at this time.

Dr. BRANDES. Yes, sir.

Mr. ZIMMERMAN. And when the program is in full swing you only contemplate producing 10 percent of the needs of this country; is that right?

Dr. BRANDES. Yes, sir.

Mr. ZIMMERMAN. In other words, the war will be fought and won—ended, before you get this thing started.

Mr. PACE. I hope so.

Mr. ZIMMERMAN. There will not be anything left after fighting for 3 or 4 years more.

Dr. BRANDES. The advantage to the United States in providing this nucleus by the planting of guayule and obtaining rubber from it is that if the war continues, it could be increased to tenfold that amount and also that this first rubber will come in precisely at the right time to continue the gradual using or expenditure of the present stock pile of natural rubber, supplementing other sources in which the Government is interested and is now exploring the possibilities of.

Mr. ZIMMERMAN. Then, as a matter of fact, this program that you are inaugurating here is to deal with a post-war program in the use of rubber?

Dr. BRANDES. No, sir.

Mr. ZIMMERMAN. Well, I thought that that was what you said as to the time when the rubber would be available.

Dr. BRANDES. It depends. It is an insurance against the possibility that the war will be a long war and an insurance that we will not be worse off at that time than we are now.

Mr. POAGE. Will the gentleman yield?

The CHAIRMAN. May I state to the committee that we will meet again tomorrow morning at 10 o'clock for the purpose of hearing Mr. Anderson and the representatives of the rubber company. Any further statement that the doctor would like to make, he will present at that time and can make, or he may have the privilege of filing a further statement. I believe that the members have asked about all the questions that they want to ask the doctor.

Mr. ANDERSON. Mr. Chairman, I would like to make one statement before the committee adjourns. The President authorizes me to speak for him as to the amount that they are requesting.

The CHAIRMAN. Will you just leave that until tomorrow morning?

Mr. ANDERSON. You want me to leave that until tomorrow morning?

The CHAIRMAN. Yes; if you will.

Mr. ANDERSON. Yes, Mr. Chairman.

The CHAIRMAN. The committee will stand adjourned until 10 o'clock tomorrow morning.

(Thereupon, at 12.01 p. m., the committee adjourned until 10 a. m. of the following morning, Thursday, January 8, 1942.)



GUAYULE RUBBER

THURSDAY, JANUARY 8, 1942

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D. C.

The committee met at 10 a. m., the Honorable Hampton P. Fulmer (chairman) presiding.

The CHAIRMAN. The committee will come to order. Mr. Anderson, we will be glad to hear from you.

STATEMENT OF HON. JOHN Z. ANDERSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. ANDERSON. Mr. Chairman and members of the committee, I have a few brief statements I would like to make with reference to the bill under consideration, and then I would like to inform the committee that the president and the vice president of the Intercontinental Rubber Co. are here and will be willing to testify following my few brief remarks.

The last question under consideration by the committee yesterday when the hearing closed was the amount of money that may have to be paid the Intercontinental Rubber Co. in order to take over their tangible and intangible assets in the United States.

The company tells me that they have made a very careful survey of the costs over the past 30 years, including their experiments in developing a perfected strain of the guayule rubber shrub, and that they find these costs amount to approximately \$3,400,000.

Following negotiations with Government officials which they have been making now for some time they express a willingness to reduce that figure to \$2,600,000.

It has been suggested that perhaps an amendment to this bill, stating that the negotiations should continue, that the company's assets, tangible and intangible, and their properties in the United States be purchased at cost, with no interest on the investment, but in a sum not to exceed \$2,600,000, might be advisable. That is for this committee to consider.

Mr. POAGE. Might I ask a question in that connection? You suggested that it be 90 days; that the sale be consummated in 90 days. I wonder if it could not be done in 60 days, because we were told it should be done by March.

Mr. ANDERSON. I would like to say in that regard that we cannot wait 90 days to take action on this. The seed should be in the ground in 90 days in order to take full advantage of the coming growing season. Mr. D. Brandes told the committee yesterday, we should have immediate action on this bill, and he recommended that action to the

committee in order that they might immediately provide the necessary nursery beds, place the 23,000 pounds of seed that they have in the ground, and take full advantage of this year's growing season.

Mr. WICKERSHAM. I think for the benefit of this record, and for the benefit of those of us who are here, we should let the record disclose that the Members of Congress feel that the reputation of Mr. Anderson, the Representative from California, is above reproach, in view of the fact that there might have been a slight reflection cast yesterday. I think every member here knows that he himself would not benefit by this, except to the extent of the benefit there would be to this district.

Mr. ANDERSON. I appreciate the gentleman's statement very much, because I want to make it clear to the members of the committee that my sole interest in this legislation is in presenting to the United States a method of producing rubber domestically, one of our essential critical items at the present time.

Mr. FLANNAGAN. Don't you think this committee would make a mistake in expressing an opinion as to the amount the Government should pay for this property? We don't know whether this is a fair figure, an exorbitant figure, or a low figure.

Mr. ANDERSON. My thought was that a top figure be placed upon it, beyond which the Department of Agriculture could not go.

Mr. FLANNAGAN. There is no information before us as to whether it is the top figure or the bottom figure. We do not know anything about the property, about the cost of it, about the value of it. And I do not think this committee should make an expression in the bill as to what the Government should pay; it looks to me to be entirely inappropriate.

Mr. ANDERSON. I just want to say that that suggestion was merely made for the consideration of the committee. You will have an opportunity to question, this morning, both the president and the vice president of the company, and I suggest you take whatever action you deem advisable.

Mr. POAGE. I wonder if this might not be in line: To add an amendment on page 2 to the effect that these properties should be acquired and the company compensated in an amount not exceeding the cost of all the properties and the cost of the development and research experiments in connection with their processes and patents, as evidenced by the books of the company, but in any event in an amount not exceeding \$2,600,000.

Mr. ANDERSON. I will say in answer to the gentleman that that is something for the committee to consider, and I would prefer not to make any statement on that. You handle it as you see fit.

There was some question yesterday about the origination of this program. I understand two of my predecessors in office brought this matter before the Congress during the period of the last 12 or 14 years, and I have asked the legislative reference service in the Library to check on that, and when the information is available I will see that it is placed in the record.

My interest in this entire project comes from the fact that Salinas is located in my district, and I have watched with a great deal of interest the development of this company in and around Salinas. I understand they have about 1,000 acres there, including their plants, the nursery beds, and some 500 acres of guayule shrub that is presently growing.

I recall about 1930 there were approximately 8,000 acres of guayule shrub planted out there; that shortly thereafter the price of rubber dropped to 3 cents a pound and most of the farmers who were producing the guayule at that time found it necessary, or thought they found it necessary, to plow that crop under, and, consequently, that entire investment was lost to the company. The company had its financial interest in those firms, and the loss was not taken by the farmers but by the company.

That is one example of what the company has gone through in the past 30 years in developing an improved strain of this guayule rubber.

My interest, so far as the Congress is concerned, dates back about 2 years when I first suggested this matter. You will find I discussed it on the floor of the House a couple of times, and I followed it very closely and made an intense study of it ever since. Consequently on June 11, I introduced my first bill. That was referred to this committee and this committee referred it to the Department of Agriculture, downtown, and it has been gathering dust on various shelves around the downtown offices for several months, and was not reported favorably until December 16. I think the necessity for immediate action on this cannot be stressed too much. The Department of Agriculture recognized the necessity for taking immediate action, as I explained to the gentleman from Texas, so that the seed could be planted immediately.

In that connection I would like to read to the committee several letters of endorsement that I have, not only from the Navy Department, but from other departments of the Government and from most of the major rubber companies in the United States.

Yesterday I read to the committee a statement made by Secretary Jesse Jones before the Military Affairs Committee of the Senate, when this same bill was under consideration.

Mr. FLANNAGAN. Has the Senate considered this bill?

Mr. ANDERSON. The Senate Military Affairs Committee has reported a similar bill favorably. It is now on the calendar awaiting action. I discussed the matter with Senator Downey yesterday, who is handling the bill over there, and he said the Senate expected to take action on it in the very near future.

In my remarks to the House of Representatives on April 16, 1941, I called attention to a report from the Department of Commerce, contained in the Rubber News statement of June 15, 1940, in which the following statement is made:

The only rubber yielding plant which has been a commercial source of rubber within the United States is the guayule shrub. This plant can be cultivated on a large scale. Methods of rubber extraction are known, and the shrub is capable of yielding some rubber if harvested at the age of 2 years, although a somewhat longer period is required for economic production.

Just recently the United States Tariff Commission issued a booklet entitled "Possibilities of Producing Rubber in the United States" in which there are several pertinent references to the guayule rubber plant development. I would like to have the chairman's permission to include the Tariff Commission's report on guayule rubber in the hearings.

The CHAIRMAN. Without objection, that may be included.

(The report referred to is as follows:)

POSSIBILITIES OF PRODUCING RUBBER IN THE UNITED STATES AND RUBBER
CONSERVATION

United States Tariff Commission

GUAYULE RUBBER

Guayule is a rubber-producing desert shrub which is native to north central Mexico and the Big Bend area of Texas. In 1912, the year of greatest output, Mexico produced 10,000 long tons of guayule rubber. After 1912 the Mexican output declined, and in 1940 amounted to about 4,000 long tons. Production facilities are being increased and production in 1942 may amount to 7,000 long tons. The entire Mexican production is from wild guayule, and the output is now restricted by the Mexican Government in order to prevent extinction of the shrub. Most of the guayule rubber produced in Mexico is shipped to the United States.

For the past 30 years, the Intercontinental Rubber Co., whose principal business is producing rubber in the Far East and importing rubber, has cultivated guayule at its experiment station near Salinas, Calif., and at scattered points in Arizona and Texas. The company has about 1,000 acres under cultivation at Salinas where it produced about 225 long tons of rubber in 1940. After extensive tests the firm has selected high-yielding, disease-resistant strains of guayule. Also, it has devised special machinery for planting, cultivating, and harvesting the shrub. One machine with a crew of 14 men plants 15 acres in 1 day of 10 hours, 8,000 plants to the acre.

Guayule requires little cultivation and an annual rainfall of only 6 to 12 inches, depending upon soil and climate. The climatic and soil conditions of the Salinas and nearby valleys in California have been found especially suitable for growing guayule, but other States in the Southwest also have areas suited to guayule cultivation.

The guayule shrub may be harvested at any time between the ages of 1 and 30 years, the general practice being to harvest it at 4 years. If for any reason it is desired not harvest the plant after 4 years, it may be left in the ground and in that way serve as a continually increasing reserve supply of rubber until the plant is 10 years of age. After growing for 10 years, guayule has a tendency to become gnarled. The shrub may be left in the ground for an additional 20 years but without any increase in rubber content. The entire shrub is taken from the ground at the time of harvest, and by a mechanical process the rubber is removed from the roots, stem, and large branches.

The cost of producing guayule rubber depends upon the age at which the plant is harvested. Starting with a cost of about 80 cents per pound of rubber when the plant is harvested at 1 year, the cost decreases for every year that the plant is in the ground until it is 7 years of age. After 7 years the carrying charges, principally interest on investment, exceed the increment in value. It appears that when the plant is harvested at the age of 4 years guayule rubber may be produced at a cost of 15 to 19 cents a pound, including the cost of land rental, preparing the land for planting, and all other costs incidental to producing the rubber, except interest on investment and the cost of deresinating.

Guayule rubber has a resin content of about 20 percent. For this reason underdesinated guayule rubber is suitable only for blending with Hevea rubber or for friction stocks (for use in manufacturing tire fabric plies, transmission belts, friction tape, etc.). It is especially suited to use in rubberizing tire fabric plies, the production of which is very large. Mr. J. H. Doering, of the Firestone Tire & Rubber Co., has written the most authoritative article on the use of underdesinated guayule rubber.¹ After considerable testing, Mr. Doering found that tires made from underdesinated guayule rubber gave a mileage 60 percent as great as tires made from Hevea ribbed smoked sheet No. 1.

However, when guayule rubber is deresinated it is of the same quality as the lower grades of Hevea rubber and can be used interchangeably with them. It is softer than Hevea ribbed smoked sheet No. 1. Practically all the large tire

¹ J. H. Doering, Firestone Tire & Rubber Co., Guayule Rubber in Tires and Tubes—Service Tests in Which the Rubber Was Exclusively Guayule, Industrial and Engineering Chemistry, 1934, vol. 26, p. 541.

manufacturing companies have tested deresinated guayule rubber, and it is reported that tires made from it give approximately 90 percent of the mileage given by tires made from ribbed smoked sheet No. 1. Most of the purchasing agents and research directors of these firms think that the Government should advance funds for the production of guayule rubber.

It appears that if substantial quantities of guayule rubber were deresinated, the cost of deresinating would not exceed 1 or 2 cents a pound. The solvent used in the process can be used several times, and the resins recovered probably could be sold.

The information available indicates that the capital investment for agricultural equipment, nurseries, buildings, maintenance shops, rubber extraction mills, and deresinating factories probably would amount to about \$20,000,000 for every 100,000 long tons of yearly productive capacity.

A shortage of planting material limits the quantity of rubber which could be produced from guayule in the next few years. If all the seeds available were planted immediately, there would be only enough seedlings to plant 45,000 acres of guayule shrubs in the spring of 1942. If 45,000 acres were planted in 1942 and harvested in 1943, they would yield a total of only about 1,500 long tons of deresinated rubber. If the 45,000 acres were not harvested until 1944, they would yield approximately 5,400 long tons. If harvested in 1946, they would yield about 21,300 long tons.²

In 1943 there could be made available sufficient seedlings to plant 450,000 acres. This acreage might yield 15,000 long tons if harvested in 1944; 54,000 long tons if harvested in 1945; or 213,000 long tons if harvested in 1947. Further plantings would be possible in 1944 and subsequent years.³

The production of guayule rubber would utilize land and migrant labor not now employed. Also, its production would not require, as in the case of synthetic rubber, large quantities of steel, chemicals, and chemical equipment, the demands for which are taxing the productive capacity of eastern factories.

Mr. HOPE. What was the nature of the report? Did they speak favorably of it?

Mr. ANDERSON. Very favorably.

While this bill was under consideration in the Government departments, the Secretary of the Navy addressed a letter to the Secretary of Agriculture, endorsing this program. I would like to read a couple of pertinent paragraphs from that letter and then place the entire letter in the record.

(The letter is as follows:)

NAVY DEPARTMENT,
BUREAU OF SHIPS,
Washington, D. C.

The Honorable SECRETARY OF AGRICULTURE,

Department of Agriculture, Washington, D. C.

MY DEAR MR. SECRETARY: In connection with a bill, H. R. 5030, introduced by Congressman John Z. Anderson, of California, for the purpose of financing the planting of 45,000 acres of guayule shrub and for the purpose of constructing, operating, and contracting for the operation of factories for the extraction of rubber from guayule, it is considered that the plan outlined would go far toward insuring a supply of guayule rubber which, together with the supply of synthetic rubber, would meet the Navy's requirements for rubber and rubber-like materials. It is estimated that the 45,000 acres of guayule shrub should yield approximately 30,000 tons of resinous guayule annually 3 years after the original planting.

The Navy Department has made certain tests on both Mexican and domestic guayule. Tests on domestic material were made on both the resinous and deresinated condition, but tests on the Mexican guayule were made only on the resinous condition. The technical information obtained may be summarized briefly by saying that the domestic deresinated guayule may be substituted for natural Hevea rubber without sacrificing the physical or chemical qualities of the manufactured

² For comparative purposes, about 650,000 long tons of crude rubber were consumed in 1940 in the United States.

³ There could be made available in 1944 sufficient seedlings to plant 4,500,000 acres. Theoretically, this acreage might yield 150,000 long tons if harvested in 1945; 540,000 long tons if harvested in 1946; or 2,130,000 long tons if harvested in 1948. For comparative purposes, about 9,000,000 acres are planted in cotton in Texas.

article. Resinous guayule is not suitable as a direct substitute for Hevea rubber. It is, however, used commercially in the making of rubber cement or rubber articles where a tacky surface is desired.

The process of extracting the resin from guayule costs approximately 1 to 3 cents per pound, depending upon the type and size of extraction equipment. This in turn depends upon the amount produced. As an over-all estimate, guayule rubber will probably cost no less than 25 cents per pound for some time to come if operations are started in the near future.

The Navy is vitally interested in the insurment of an adequate supply of rubber for its essential uses. While the plan presented does not offer an immediate supply if the supply of Hevea rubber should be cut off in the near future, it nevertheless does offer a fairly definite basis for a supply of rubber which would be available within a reasonable length of time. Consideration should also be given to the fact that all of the money expended in the production of guayule rubber will remain in the United States in place of the large sums which now flow from this country for the procurement of crude rubber.

It is understood that a survey of the possibility of large-scale production of Hevea rubber in South America has been made. However, such production could not, even if successful, become available for a period of 10 to 12 years, and such guayule as may be produced in this country may be of importance in bridging this period. On this basis, favorable recommendations appear justified.

Sincerely,

NOTE.—A duplicate of this letter was addressed to the Chairman of Reconstruction Finance Corporation, Washington, D. C.

Mr. ANDERSON, I addressed a communication to some of the leading tire companies in the United States while this bill was pending, and have received a favorable reply, in one form and another, from the presidents of most of them.

I would like to read those letters; they are not very long, and I think they will be very interesting to the committee.

(The letters referred to and read by Mr. Anderson are as follows:)

THE GENERAL TIRE & RUBBER CO.,
Akron, Ohio, December 29, 1941.

Hon. J. Z. ANDERSON,
House Office Building, Washington, D. C.

MY DEAR CONGRESSMAN: In view of early consideration of your legislation fostering the development of guayule as a rubber source, I wish to emphasize the necessity of immediate favorable action by Congress.

You understand, of course, that we do not believe guayule is the entire answer, that our synthetic production must be expanded and speeded and that we must explore the possibility of rubber from South America.

However, it is my sincere opinion that this country would be lax indeed if we did not hasten the guayule program, and I urge the immediate passage of the legislation now pending.

You may be interested to know that in my long experience in the rubber business we have used guayule in the manufacture of tires and have found it very satisfactory. It may be used in 80 percent of the places where Hevea rubber is used and certainly Congress should not hesitate to pass the necessary legislation to get a program of guayule development under way.

Sincerely yours,

THE GENERAL TIRE & RUBBER CO.,
W. O'NEIL, President.

THE B. F. GOODRICH CO.,
Akron, Ohio, January 3, 1942.

Hon. J. Z. ANDERSON,
The House of Representatives, Washington, D. C.

DEAR MR. ANDERSON: I have your telegram regarding the pending legislation which provides for the planting of 45,000 acres of guayule.

The B. F. Goodrich Co. has used guayule most of the time for more than 30 years and last year consumed approximately 50 percent of the guayule imported or produced in this country.

We are currently using guayule in tire stocks and in certain industrial goods products. It is our belief that it offers possibilities for greater use, as added experience is acquired with it.

Its future will depend, however, on its status in relation to the price and availability of plantation rubber. Consideration should be given to the fact that the price of rubber went down to less than 3 cents a pound in June of 1932.

While I have felt for some time that the B. F. Goodrich plan for the establishment of large-scale synthetic rubber plants, which was submitted to the Government in July 1940, would be our best guaranty against complete dependence on foreign sources for rubber, the present emergency, in my opinion, justifies legislation for the increased cultivation of guayule in this country.

I therefore recommend the immediate passage of H. R. 6262 and thank you for your interest in writing to me.

Yours sincerely,

JOHN L. COLLYER.

THE GOODYEAR TIRE & RUBBER CO.,
Akron, Ohio, December 30, 1941.

HON. J. Z. ANDERSON,

House of Representatives, Washington, D. C.

DEAR MR. ANDERSON: Replying to your wire of today regarding H. R. 6262, while I question the commercial possibilities of guayule in times of peace and free world movement of rubber to compete with Hevea plantation rubber, I do believe that as a matter of insurance, considering the present international situation, we are justified in planting 45,000 acres of guayule from seed now available to provide a source of planting seed for much larger expansion later, if conditions at that time seem to warrant it.

For many years we have been using about 1,200 tons of guayule per year, mixing it with Hevea rubber, for quite a number of rubber products.

While it is inferior to natural rubber, due to its high resin content, it can be made to equal Hevea rubber, at a substantially increased cost, by having the resin extracted.

Sincerely yours,

P. W. LITCHFIELD,
Chairman of the Board.

Now, Mr. Chairman, I would like to say, in spite of the fact that Mr. Litchfield seems to think there is a large increase in cost per pound necessary to deresin the rubber, experiments have proven, and the Navy Department states, that it can be deresinated at a cost of from 1 to 3 cents a pound. So that is not a very large item when you consider that, according to this statement, the deresination of this rubber makes it the equal of Hevea rubber which we are importing at this time.

MR. HOPE. Can you explain why these companies, who say they have been using this rubber for a number of years, during a time when it was much higher in price—have been able to do that? Have they been able to buy it at the price of plantation rubber, or have they just been experimenting with it?

MR. ANDERSON. I think it has passed the experiment stage. I think they are able at the present time to obtain guayule rubber for a price considerably less than they have to pay for the Hevea rubber.

MR. HOPE. One of the companies mentioned using it for the past 20 years. Most of that time the cost of production was higher than that of plantation rubber. I thought you might know why they were using it.

MR. ANDERSON. I am informed by Mr. Mason of the General Tire & Rubber Co. that there are a lot of rubber products where the resin content in guayule rubber is extremely valuable, and they do not deresin it, because they want that resin in it.

Mr. HOPE. So that they might be willing to pay a higher price.

Mr. ANDERSON. That is entirely possible.

The CHAIRMAN. Can you give us any figures as to the amount consumed in this country during the past year or two?

Mr. ANDERSON. Yes. According to the Department of Commerce we imported approximately 4,000 tons in 1940, and although the latest figures are not yet available for 1941, the Department of Commerce expects that figure to increase to about 6,000 tons of guayule rubber imported last year.

The CHAIRMAN. I am talking about the production in this country. One of the letters you read indicated that perhaps they had consumed quite a large amount. But apparently it was imported.

Mr. ANDERSON. Most of it is imported from Mexico.

The CHAIRMAN. Can you give us any figures as to any amount that has been used in this country from the operation of this rubber company?

Mr. ANDERSON. This rubber company also runs a plant located in Mexico. The plant that they have located in my district, in California, at Salinas, refined approximately a half million pounds of guayule rubber early last year, in January, February, and March of 1941, and all of that rubber went into immediate consumption.

The CHAIRMAN. But that was imported?

Mr. ANDERSON. No; that was produced in Salinas Valley, in California.

Mr. FLANNAGAN. Yesterday I could not remain until the hearing was completed. There are two or three things I would like to know. How many companies are there in the United States producing guayule rubber?

Mr. ANDERSON. One company.

Mr. FLANNAGAN. Just one company?

Mr. FLANNAGAN. In the event the Government buys that company out, what will it get for this \$2,600,000 that you suggest?

Mr. ANDERSON. I would prefer you ask that question of the officials of the company who are here and will testify after I do. They have a list of their assets and their acreage in this country.

Mr. FLANNAGAN. They are going to testify?

Mr. ANDERSON. Yes, indeed. I am not entirely familiar with what their assets consist of, but in addition to their patents, they have spent 30 years in this country developing this plant to the present improved strain. It has been a long, hard road. I have made a close study of it, and I am amazed by some of the obstacles overcome in producing a guayule plant which originally, in its wild state, contains only 7 or 8 percent rubber, and which now, in some cases, yields 20 percent rubber. It is an amazing story.

Mr. FLANNAGAN. Is the plant grown extensively in Mexico?

Mr. ANDERSON. It is grown there only in its wild state. It is not cultivated in Mexico.

The CHAIRMAN. I suggest if you have any more letters they be included in the record without reading. They will all be about the same, I suppose.

Mr. ANDERSON. Yes. I have a telegram from Harvey Firestone, Jr., of the Firestone Rubber Corporation, and I will place that in the record. It is also an endorsement of this program.

(The telegram referred to is as follows:)

AKRON, OHIO, December 31, 1941.

HON. J. C. ANDERSON,

Congressman from California:

Your telegram requesting our views of guayule rubber, advice regarding some of the various uses to which it is being put, and amount used by our company has been received. Guayule rubber has never attained wide use in normal times, as you doubtless know, because of its high resin content. In the softer rubber stocks, such as those used between the cord plies of tires, satisfactory results can be obtained from rubber compounds that contain a small percentage of guayule rubber. Normally the Firestone Co. has used monthly over the past many years between 20,000 and 40,000 pounds of guayule rubber. To be of use by itself or in an appreciable percentage of total rubber in any given compound guayule rubber must be deresinated. I do not know of any present economical means of effecting this deresination on a commercial scale, but American ingenuity should be able to devise a workable process when the need is great and when the factor of competitive cost is relegated to the background. It is quite possible too that compounds using guayule rubber without deresination can be devised to make many articles which, while inferior when judged by normal standards, may prove sufficiently serviceable for stop-gap use in these times of emergency. It is my belief that no known source of rubber for our country should be left unexplored and upon this premise a reasonable program for Government subsidy of guayule planting appears fully justified.

HARVEY S. FIRESTONE, Jr.,

Mr. COFFEE. Mr. Anderson, I am in full accord with your efforts to increase rubber production in this country, and I think you are to be complimented on the effort you have made in that direction. However, since this company has spent 30 years in developing this product, don't you feel that the services of that company and its employees who are familiar with the production of this rubber should be utilized, and that the Federal Government should supplement their efforts, rather than take over their plant for the production and processing of guayule rubber? Don't you feel that there is a chance that we might encourage this as a domestic industry by subsidizing its production, similar to what we are doing with the domestic sugar industry? It seems to me that a company that has stood up for 30 years in the production of this guayule rubber has something on the ball.

Mr. ANDERSON. I think that is agreed.

Mr. COFFEE. And we should encourage private industry in this field to continue, rather than have the Federal Government take it over entirely.

Mr. FLANNAGAN. I think your idea is we would save money by subsidizing this industry and putting it on its feet.

Mr. COFFEE. I think it would be much cheaper for the Federal Government to subsidize this production and have private industry carry on, rather than have the Federal Government, with inexperienced help, try to handle it exclusively.

Mr. ANDERSON. I would like to say in answer, gentlemen, that it goes to the question of policy, which the committee must decide. I am informed by the company that this is a tremendous undertaking. Seventy-five thousand acres to be planted next year from seedlings that may be available will result in 10 times as much seed next year as we have this year. The company itself does not feel able to carry out that program; they do not feel they have the facilities, the necessary personnel, and they are utterly incapable of carrying through any such program. I would suggest you question them at greater length on that when they take the stand. However, I do feel that we should

take the utmost advantage of the skilled personnel that they have available and I am sure Dr. Brandes and the other officials from the Department of Agriculture intend to do that.

I agree with the gentlemen in that I should not like to see the Federal Government taking over private industry where it can be avoided. This, however, is an extreme emergency. We are in a war; we need rubber badly. We are going to need it worse within 2 or 3 years, and whether or not this company could expand rapidly enough to take over the production of the amount of rubber that would be required in this country is very problematical.

Mr. COFFEE. It is doubtful if it would ever reach the point of producing more than 10 or 15 percent of our requirements.

Mr. ANDERSON. I cannot agree with that.

Mr. COFFEE. But even so, it should be encouraged to its maximum capacity.

Mr. ANDERSON. I cannot agree with the gentleman that we can only look forward to producing 10 or 15 percent of our supply. There is no limit to the expansion of this industry once it gets started.

Mr. COFFEE. I am glad to hear that. I understood Dr. Brandes yesterday to indicate that about 75,000 acres was the maximum of expansion.

Mr. ANDERSON. No; I am sure you misunderstood Dr. Brandes. Seventy-five thousand acres is all we can plant now, because that is all the seed we have. But there are millions of acres in the four States mentioned that could be put into production of guayule rubber. There is no limitation on the available land necessary to produce all the seed we need.

Mr. COFFEE. I am glad to hear that, because it bolsters my contention that we should try to keep this from being a Government monopoly. We should encourage private enterprise and encourage farmers throughout all these States that can produce it, to produce this guayule rubber, and at the same time have the Government provide the nurseries, provide the seedlings, and do the educational work, and provide the necessary subsidy to encourage production wherever it may be obtained. I think in that way we would increase production at a much faster rate than we would if we turned it entirely over to the Government for operation exclusively.

Mr. ANDERSON. As I say, that is purely a matter of policy that the members of the committee will have to decide. One thing I don't think we should lose sight of is the necessity for immediate action that will permit the Department of Agriculture to plant all the available seed now. Otherwise, we will lose an entire year that we cannot afford to lose.

Mr. PACE. Mr. Anderson, I rather favor private enterprise, where it is free, but would we gain very much by building up an absolute monopoly in the hands of one concern? Isn't it possible, as much as we dislike Government operation of private business, that in the long run, for the benefit of the people, we should break down the control of this new industry, and not concentrate it in the hands of one concern that has an absolute utter monopoly?

Mr. FLANNAGAN. If we provide the subsidy it would be open to all the farmers in that area. It would be just like the subsidy that applies to all beet growers.

Mr. PACE. But you wouldn't have any source of processing except that owned by the Intercontinental Rubber Co.

Mr. FLANNAGAN. We have practically the same situation in the beet industry.

Mr. PACE. In that there is a series of refineries. Here we are dealing with one concern. It appears now that the Intercontinental Rubber Co., after struggling through the years—and I think they are to be commended for it—but I would not favor, it seems to me, offhand, putting millions of dollars of Government money into the hands of a concern to build up an utter and complete monopoly, which in a way would have more disastrous effects than if the Government took it over.

The CHAIRMAN. As stated by Mr. Anderson, that is really a question for the committee. Suppose we question the witness on that if you desire. Let him make a brief statement for or against the proposition and get on with his statement, so that when he has finished we can take this up and fight it out between us. I don't think we can gain much by arguing it here, and we are taking up time. I would like to have the witness give us any definite information that will be helpful to the committee, and we can then hear these other gentlemen and get information from them. Then the committee can go into executive session, and with the information given, we will be able to decide just what this committee should do.

Mr. COFFEE. I would like to ask the gentleman one question. That is, if the price of this rubber could be maintained, does the gentleman think that other rubber concerns would be interested in developing facilities to process this guayule rubber?

Mr. ANDERSON. That may be entirely possible, but I have as yet had no indication of that.

Mr. COFFEE. Does the gentleman not think that the R. F. C. would be glad to finance any plant that might be established to facilitate the production and processing of this rubber?

Mr. ANDERSON. I should think the R. F. C. or any other Government agency should be ready and willing to finance this program in any way possible, because the need for additional rubber is so great at the present time.

There was one matter that was not discussed at any length yesterday, Mr. Chairman, that I should like to submit to the committee, because it offers possibilities, and that is the possibility of growing guayule rubber from seed within 1 year at, of course, a tremendous increase in cost per pound. The company does not subscribe to this theory, nor does the Department of Agriculture, but several well-known rubber experts in the country think that is possible, and I would like to read two or three brief items here in that connection, Mr. Chairman.

Mr. O'Neil wrote me the other day the following letter:

THE GENERAL TIRE & RUBBER CO.,
Akron, Ohio, January 2, 1942.

HON. JOHN Z. ANDERSON,
House Office Building,
Washington, D. C.

DEAR CONGRESSMAN: There has been a great deal of discussion about guayule in recent weeks and a great deal of controversy regarding the best system of raising it.

I would like to point out on the eve of House consideration of your bill these basic facts:

1. There is real rubber in guayule.
2. Guayule will grow in this country.

After all, nothing else matters. If it takes 1 year, we are in a much better condition than if it takes 4 years. If it costs 10 cents a pound, we are in a much better condition than if it costs 30 cents a pound. But, whatever the time or the cost, it is my firm conviction that the Government should immediately plant all available guayule seed.

Whether or not the 1-year system will work can be speedily determined by harvesting some of the seedlings planted last April in the Intercontinental nursery at Salinas. If it is found to be practical, we can then proceed on the Spence plan of annual harvest. If it is not found to be practical, we can proceed on the cycle plan advanced by Dr. McCallum. Certainly Dr. Spence should be interviewed by responsible people in the Government and his plan given a real trial because it promises the quickest supply of rubber if his beliefs can be substantiated.

I respectfully urge that Congress speed through legislation for the development of guayule and that you take advantage of every available pound of seed to carry out plans for planting.

Very truly yours,

THE GENERAL TIRE & RUBBER CO.
W. O'NEIL, *President*.

Now, in that regard, may I say that Dr. Spence served as Chairman of the Rubber Division of the War Industries National Research Council during the last war. He was chosen to deliver the Charles Goodyear Rubber lecture but was unable to attend because of illness. In response to questions directed to me sometime ago with respect to the possibility of developing rubber from guayule in 1 year, I would like to read the question and answer for the benefit of the committee:

ANDERSON. Do you think it possible to raise guayule rubber on a commercial basis by sowing the seed thick and harvesting in less than a year?

SPENCE. It has been definitely established and reported that guayule plants grown in California less than a year old contain more than 6 percent of pure rubber, or, on the basis of the number of plants per acre, more than 1,000 pounds of pure rubber per acre. While much may have to be done to translate these findings to agricultural factors, nevertheless I consider this an all-important approach to the problem of guayule cultivation in this country, both for the present emergency and for the future. In the hands of practical farmers, aided by technical assistance, and with treated seed available, I see no reason to doubt for one moment the successful application in some form of this all-important development as a practical matter.

Mr. FLANNAGAN. What are you reading from?

Mr. ANDERSON. I am reading from an article that appeared in the Rubber Magazine recently. That article consisted of several questions and answers developed between Dr. Spence and myself.

Mr. PACE. Do you develop how you would have to treat this; whether you would have to get new acreage each year?

Mr. ANDERSON. That is a rather amazing thing about this plant. It can be planted in the same acreage in rotation. Dr. McCallum states that the use of fertilizer is not necessary. Several of the farmers in the Salinas Valley, who left the guayule in the ground when the price of rubber went to 3 cents and harvested it some years later when the price was up again, stated to me their land had been definitely improved because of the fact that guayule rubber had been produced there. In other words, where they had been getting so many bushels of beans per acre, where they planted beans again, after digging the guayule shrub out, they got an increased yield.

That is a rather remarkable thing. Apparently the plant is not soil depleting; rather, it is soil conserving.

Mr. PACE. How do their profits compare?

Mr. ANDERSON. Their statement to me was it was the best cash crop in the ground when they harvested it, but they had to ride out the storm when the price was down to 3 cents, and there were few that did it.

Mr. PACE. Once this plant is harvested, must it be reseeded, or is it grown from the roots?

Mr. ANDERSON. If it is to be cultivated, it has to be reseeded. The seed is gathered annually, and, according to Dr. Brandes, the seed which we plant this year will increase tenfold next year, so that if you plant enough seed this year to have seedlings available for 60,000 acres next year we would, the following year, have enough seedlings available for 600,000 acres, if we desired to use them up.

Mr. HOPE. When you harvest it, do you take up roots and all?

Mr. ANDERSON. The entire plant is harvested. Rubber is found in every part of the plant except the leaves.

Now, just one observation on the necessity or advisability of continuing this program. I do not subscribe to the views expressed yesterday by Mr. Appleby that this is simply an emergency program. I can see no reason why his should not be continued to a certain extent, at least, after the present emergency is over. I don't think anyone could explain to me why we should not have a certain amount of guayule available in the shrub as an insurance policy against just such a shortage as we are facing at the present time.

At the present time, as stated by Dr. Brandes yesterday, we are importing approximately 97 percent of all the rubber we use from the East Indies. We are at the complete mercy of an international rubber monopoly, a rubber cartel, that sets the price; and, regardless of what the cost of production of hevea rubber is, we have to pay that price.

Mr. HOPE. Who controls the rubber cartel?

Mr. ANDERSON. I wish I could tell you; I don't know. I am not an international rubber expert.

Mr. HOPE. Can you find out?

Mr. ANDERSON. I think I could find out. Undoubtedly there are persons here in the room who could tell you more about it. But to me, that is one thing that this committee and the Congress should keep very much in mind, the advisability of always keeping available a certain percentage of the rubber which we consume annually, so that we will not be at the complete mercy of an internationally controlled rubber monopoly.

The CHAIRMAN. Mr. Anderson, right at this point it might be of interest to mention that Dr. Cameron, and some others in North Carolina, at the university in Chapel Hill, N. C., put over some research work in connection with the utilization of cotton stalks—in other words, the whole cotton plant, boll, stalk, leaves and everything, out of which they could get 52 percent of pure cellulose that could be used in connection with the manufacture of all kinds of pulp products, but we have not been able to get anywhere with it, for the reason that those who manufacture those products are able to control the situation. Prior to the war we were shipping into this country, importing into this country, 50 percent of the total amount of pulp, pulpwood and

newsprint consumed in this country, and at prices at which they were able to put our pulpwood in this country on a starvation basis, and, as stated by you, we are going into this; and if we are going into it just as an emergency measure and putting that much money into a rat hole, I don't think there is anything to it. If we can produce rubber in this country, even at a higher price, why couldn't we protect that price like we do in other instances, or that comes in competition with manufactured products in this country, and give an advantage to the people who would be able to produce rubber in this country. There is something got to be done in connection with cotton in the South, which could be utilized along the lines I have suggested, to the end that we can grow as much or more cotton as we have ever grown. It would make those products slightly higher, but we would produce them in this country and consume them in this country, and it would increase the income to every line of business tremendously, the farmer and everyone else. But I have never been able to get anywhere with that kind of a proposition, and I imagine that is what Mr. Appleby had in mind, that just as soon as the emergency is over, we will permit these people to go to the other countries and buy at cheap prices and quit the production in this country.

Mr. ANDERSON. As I say, I am not in accord with that idea, and I am glad to hear the statement you have just made. The fact that that has been the policy in the past is no reason why we cannot change it in the future, and I hope the day will come when we will change it.

Now, unless there are further questions, I have nothing further to offer at this time. As I say, the president and vice president of the Intercontinental Rubber Co. are here and ready to testify, if the committee desires to hear from them.

Mr. MURRAY. I noticed yesterday in the testimony that most of this guayule rubber is grown in Mexico. I wonder if any attempt has been made to purchase guayule from Mexico and what the possibilities would be.

Mr. ANDERSON. I would say to the gentleman that in that regard about every available pound that can be refined in Mexico is being refined. It is not cultivated there; it is refined from the wild shrub, and if all the wild shrubbery were used up there wouldn't be any there to reseed, and the supply would be completely exhausted as it was in Texas at one time. I stated to the committee a short time ago that we imported from Mexico approximately 4,000 tons of refined guayule rubber in 1940. That figure is expected to reach about 6,000 tons in 1941.

The CHAIRMAN. Thank you very much, Mr. Anderson.

We will now be very glad to hear from Mr. Baker and Mr. Atwater. It may be that you gentlemen would like to go on together.

STATEMENT OF C. L. BAKER, PRESIDENT, AND HENRY G. ATWATER, VICE PRESIDENT, INTERCONTINENTAL RUBBER CO., NEW YORK CITY

Mr. BAKER. Mr. Chairman and gentlemen, perhaps the best approach is to continue where Mr. Anderson left off.

Regarding our operating this emergency effort, I am totally opposed to it. There is only one outfit that can do it on the enormous

scale it has got to be done on, and that is the Government. The Department of Agriculture has agriculturists that are experts, and they are capable of getting any men that are needed. We are a small company with perhaps six operating men. We are not agriculturists; we are industrialists. We are not competent to handle it on this enormous scale, and there is only one outfit that can, and that is the Department of Agriculture, and it is folly to have anybody else meddle with it.

I believe the Department of Agriculture can do it and do it well and quickly.

The CHAIRMAN. Mr. Baker, would you want to give us a short story about your work in the past 30 years, what you have been doing, and your ups and downs, and so forth?

Mr. BAKER. I would be glad to.

This company was organized back in 1934. Some very prominent men in the States organized it and contributed to a study of getting the rubber out of guayule.

Mr. POAGE. Where was it organized?

Mr. BAKER. It was organized in New York. Senator Aldrich was a very active man in it, Mr. Baruch and Thomas Fortune Ryan, and some very important men contributed a large sum of money to pioneer this thing. It was completely new. They sent scientists to Mexico to study it, and they worked it out in a very intelligent and able way.

The CHAIRMAN. Do you mean they furnished money as stockholders, or just contributed from their own funds?

Mr. BAKER. It was more or less a partnership at first, and when they got a process they formed a company and went ahead with it.

The CHAIRMAN. Who owns the company now?

Mr. BAKER. Well, it is owned by the public. There are something like 1,200 stockholders. None of those men are in it now. They have all sold out. The real control of the company is held in Holland, a trust known as the Nederlandsche Administratie en Truskantoor. It is under the protection of the Legation. The Legation supplies the proxies and handles all representation of the owners.

Mr. FLANNAGAN. It is under the control of foreign interests, is that right?

Mr. BAKER. It is.

Mr. FLANNAGAN. Are they the same group that has control over the rubber in the Dutch East Indies?

Mr. BAKER. No. We have a plantation in the Dutch East Indies. This is an entirely independent group. The trust holds our stock and issues stock against it, so that it is not a concentrated—the stock is not concentrated in the hands of a few people. It is widely distributed in Holland and widely distributed here.

Mr. FLANNAGAN. How did the foreign interests happen to acquire this stock?

Mr. BAKER. They are rubber-minded; and they thought this was a different line of work that showed promise, a different location in the world, and they thought it a desirable company to put money into.

Mr. FLANNAGAN. And this company purchased the stock of Ryan and Baruch and the New York crowd?

Mr. BAKER. I cannot say that definitely. They have increased their holdings over a period of 20 years.

Mr. COFFEE. What percentage of the stock is foreign-owned?

Mr. BAKER. Sixty-three percent.

Mr. PACE. We have discussed the matter of time here. It it is foreign-owned and the international situation is like it is, would you be able to consummate any transaction within 60 days?

Mr. BAKER. Immediately. I have already been in touch with the Legation and they have tentatively approved it.

Mr. POAGE. You have the right to sell the property?

Mr. BAKER. We have the right to sell the property. This may be done right away. We can give you possession immediately.

Mr. FLANNAGAN. Are there any people in this country who are large stockholders?

Mr. BAKER. It is very widely held.

Mr. FLANNAGAN. Who is the largest stockholder in America?

Mr. BAKER. I cannot tell you. I don't believe there is anybody who owns over 5,000 shares. We only have 600,000.

Mr. FLANNAGAN. Are you a heavy stockholder in it?

Mr. BAKER. I am not a heavy stockholder. I own 500 shares myself; my wife has 1,500.

Mr. FLANNAGAN. Are you paying any dividends on the stock?

Mr. BAKER. Yes; we are paying 40 cents a share.

Mr. FLANNAGAN. What is the par value of the stock?

Mr. BAKER. Five dollars stated value.

Mr. FLANNAGAN. And you have been paying 40 cents?

Mr. BAKER. Yes.

Mr. FLANNAGAN. That is a very good dividend. What is the market price of the stock?

Mr. BAKER. The stock was quoted yesterday at 97%.

Mr. FLANNAGAN. And you have been paying 40 cents a share in dividends?

Mr. BAKER. Yes.

Mr. FLANNAGAN. On stock certificates worth \$5. That is a pretty good dividend, isn't it?

Mr. BAKER. It is a good dividend.

Mr. FLANNAGAN. It looks to me as though your struggle down there with guayule has been pretty successful. I don't see why you want to sell it if you are paying 7 or 8 percent.

Mr. BAKER. It is good when rubber prices are good, and awfully bad when they are not. We have spells when we have to completely shut down.

Mr. FLANNAGAN. But that dividend is a pretty good dividend in good times as well as bad times.

Mr. PACE. He didn't say they paid it every year.

Mr. COOLEY. Where is the tangible property owned by this corporation located?

Mr. BAKER. You refer to the property in California?

Mr. COOLEY. No; all the tangible property of the corporation.

Mr. BAKER. The greatest property is in Mexico. We have a plantation in Sumatra, and we have a plant and land in California, improvements, machinery, and we have land with wells and some improvements in Arizona.

Mr. COOLEY. Is it contemplated by this transaction to transfer all the tangible property of the Intercontinental Rubber Co. to the Department?

Mr. BAKER. Yes, sir.

Mr. COOLEY. Including the property in Mexico?

Mr. BAKER. Not the property in Mexico or Sumatra. The property in Arizona and California.

Mr. COOLEY. That is the least profitable property that you have, isn't it?

Mr. BAKER. That property has never been on an operating basis. I would like to go back over the history which you requested before. We developed the business in Mexico, and we were doing splendidly; it was a fine business, and then suddenly the revolution came along and we had to shut down, and we had great losses.

Mr. FLANNAGAN. Right there, how much of this property is in the United States and how in Mexico? This Intercontinental Rubber Co. owns property in the United States and in Mexico?

Mr. BAKER. Yes.

Mr. FLANNAGAN. What percent of the property is in the United States?

Mr. BAKER. A very small percentage.

Mr. FLANNAGAN. What is the capitalization of the company?

Mr. BAKER. Six hundred thousand shares.

Mr. FLANNAGAN. That is \$3,000,000, is it not?

Mr. BAKER. Yes, sir.

Mr. FLANNAGAN. And a very small part of it in the United States?

Mr. BAKER. Yes.

Mr. FLANNAGAN. And you want to sell that to the Government for \$2,600,000?

Mr. BAKER. Yes.

Mr. FLANNAGAN. That is mighty near the capitalization of the whole company; and the Government would not be getting the Mexican property.

Mr. BAKER. We have considerable other assets besides.

Mr. FLANNAGAN. Just answer that question. I just want to get the facts. You stated that only a small part of this property was in the United States.

Mr. BAKER. Yes.

Mr. FLANNAGAN. And you want to sell the small interest in the United States to the United States Government for \$2,600,000.

Mr. BAKER. Yes.

Mr. FLANNAGAN. And hold the bulk of your property in Mexico.

Mr. BAKER. Yes.

Mr. HOPE. Let me ask this question; what is the value of all your property? How does the price asked compare with the value of your outstanding stock?

Mr. BAKER. No. It is a good deal more than that.

Mr. HOPE. What is it?

Mr. BAKER. When rubber was selling for a dollar a pound we made a great deal of money and we plowed it back into the business. We have an investment in Sumatra of about \$2,500,000. Our investment in Mexico, I cannot tell you what it is today, but we put into the business down there a good deal more than that.

Mr. FLANNAGAN. More than your capital stock?

Mr. BAKER. Considerably more.

Mr. FLANNAGAN. Did you make a special assessment on your stock?

Mr. BAKER. No. We did it by plowing back profits. This was done over a period of years.

Mr. FLANNAGAN. And you were paying 8 percent dividends and making such a profit that you were able to plow money back?

Mr. BAKER. No; that is not true. In those days when we were making those good profits, the money was plowed back, and now we are getting the benefit of it.

Mr. FLANNAGAN. What percentage of this property is in the United States and what percentage in Mexico, and what percentage in Sumatra? You have got a capitalization of \$3,000,000; you want to sell the part in the United States for \$2,600,000. I want to know what percentage of your company is in the United States.

Mr. BAKER. We have a good deal of surplus—

Mr. FLANNAGAN. All right. Just what percentage of the company would we be getting?

Mr. BAKER. I would say, of the invested capital—

Mr. FLANNAGAN. No. I am talking about the total. What percentage of the total assets of the company is represented by your holdings in the United States?

Mr. BAKER. It is very difficult to convert that into stock representation.

Mr. FLANNAGAN. All right. How many acres have you got in guayule rubber in the United States?

Mr. BAKER. Oh, in acres, we have only got about 600.

Mr. FLANNAGAN. Six hundred acres?

Mr. BAKER. Yes.

Mr. FLANNAGAN. And you want to sell the United States Government 600 acres of guayule rubber for \$2,600,000.

Mr. BAKER. No, sir.

Mr. FLANNAGAN. What are you selling?

Mr. BAKER. We are not operating in the States—

Mr. FLANNAGAN. What is the Government going to get for this \$2,600,000?

Mr. BAKER. The Government is going to get the results of 30 years of research, of very great accomplishment in developing this thing. We have tangible property worth over a million dollars.

Mr. FLANNAGAN. Whereabouts?

Mr. BAKER. In Salinas, in Arizona, and in the southern part of California.

Mr. FLANNAGAN. Are 600 acres worth over a million dollars?

Mr. BAKER. We have a factory there—

Mr. FLANNAGAN. What did that factory cost?

Mr. BAKER. It could not be duplicated today for \$400,000.

Mr. FLANNAGAN. What did it cost?

Mr. BAKER. I think it stands on the books at about \$250,000.

Mr. FLANNAGAN. And you have charged against that wear and tear and depreciation from year to year. What does it stand on the books at today?

Mr. BAKER. At \$250,000.

Mr. FLANNAGAN. You have not reduced it?

Mr. BAKER. I do not carry those figures in my mind. I have only headed this company for the last 6 months. My predecessor died in office and I came in in May.

Mr. FLANNAGAN. Then, if I understand it, the Government would be getting a property that cost \$250,000, plus 600 acres of guayule shrubbery for \$2,600,000.

Mr. BAKER. No, sir.

Mr. FLANNAGAN. I want to know what it would get.

Mr. BAKER. Research work is expensive.

Mr. FLANNAGAN. Well, you did mighty little of that research work in the United States. Only a small part of your holdings are in the United States. They are down in Mexico and over in the East Indies.

Mr. BAKER. Research work is an expensive game. Thirty years of it runs into money.

Mr. FLANNAGAN. You don't want to charge us up with all your research work?

Mr. BAKER. Why not?

Mr. FLANNAGAN. Most of it was devoted to Mexico and Sumatra.

Mr. BAKER. No; it has never been devoted to Mexico. This was devoted wholly to the United States and this project.

Mr. HOPE. Let me ask you right there—the research work has been connected with the domestication of the plant, improving the quality of the rubber content.

Mr. BAKER. Exactly.

Mr. HOPE. Has it all been with that thought in view?

Mr. BAKER. Exactly.

Mr. HOPE. Have your operations in Mexico consisted of using the domesticated plant?

Mr. BAKER. Solely the wild plant. We have never done any domestication there. It was originally started in Mexico, and the revolution interrupted our operations and disturbed us so much we had to move to the United States, and we thought it was a desirable development up here to get us out of Mexico and the revolutionary troubles.

Mr. HOPE. Is any of this plant grown domestically in Mexico?

Mr. BAKER. No; none whatever.

Mr. HOPE. It is all wild?

Mr. BAKER. It is all wild.

Mr. FLANNAGAN. But you have only about 600 acres in the United States that you want to turn over to the Government.

Mr. BAKER. Six hundred acres of growing guayule; yes, sir.

Mr. FLANNAGAN. How old is that?

Mr. BAKER. That is 6 or 8 years old, Mr. Flannagan. That is the seed source.

Mr. FLANNAGAN. That is the seed source?

Mr. BAKER. Yes.

Mr. FLANNAGAN. Your processing plant also, which cost you some years ago some \$250,000?

Mr. BAKER. We have got tangible assets in excess of \$1,000,000.

Mr. FLANNAGAN. What are they? I want to know what they are, what the Government is going to get.

Mr. BAKER. Land, 10,000 acres in Arizona, with developed wells of about 1,000 gallons each—

Mr. FLANNAGAN. What did that Arizona land cost you?

Mr. BAKER. It stands us nearly \$1,000,000, the whole thing. It has been depreciated down to about \$300,000.

Mr. FLANNAGAN. What did you pay per acre for the land in Arizona?

Mr. BAKER. I don't know.

Mr. FLANNAGAN. You are president of the company, are you not?

Mr. BAKER. I don't know what we paid. The value of it today is somewhere around \$250 or \$300 per acre.

Mr. FLANNAGAN. Your land in Arizona is worth \$250 or \$300 an acre?

Mr. BAKER. Something like that.

Mr. HOPE. What has the main cost been in bringing it to that value, irrigation facilities?

Mr. BAKER. Yes; it is Long Staple cotton land, being planted in cotton right now. It is right near Tucson. We figure that the land there is worth \$250,000.

Mr. FLANNAGAN. That would be \$2,500,000 right there. You are making a pretty bad trade with the Government, aren't you?

Mr. BAKER. That is not all irrigated.

Mr. FLANNAGAN. You are making a pretty bad trade at those figures.

Mr. HOPE. How much of it is cleared?

Mr. BAKER. I should say two-thirds of it.

Mr. FLANNAGAN. How far are you from Tucson?

Mr. BAKER. Very close. Toward the border, I should say about 20 miles.

Mr. COOLEY. To what extent have you operated in the United States with this plant?

Mr. BAKER. We had planted at one time about 8,000 acres. This whole project contemplated a 30-cent price of rubber or better. When these 8,000 acres were planted rubber was about 35 cents, and the company thought we were safe in going ahead. When the rubber was ready to harvest the price was 3 cents, and it just knocked the pins out from under us, of course, and we haven't yet had the nerve to tackle it again until we can see some assurance of a price.

Mr. COOLEY. Have you actually operated that processing plant in California?

Mr. BAKER. Oh, yes; it was operated this past year.

Mr. COOLEY. For how many years has it been in operation?

Mr. BAKER. It has had several campaigns of perhaps 3 months each.

Mr. COOLEY. You haven't had any campaigns on improved property so far, have you?

Mr. BAKER. They were too short. There wasn't rubber available to be profitable.

Mr. COOLEY. And the price of rubber was low during the operation?

Mr. BAKER. Yes; except this year.

Mr. COOLEY. These 8,000 acres that were planted, were they planted by the farmers of California or by the company?

Mr. BAKER. By the farmers in California.

Mr. COOLEY. Under contract with the company?

Mr. BAKER. Yes. We financed them, and when the price broke they simply plowed it under, most of it.

Mr. COOLEY. Has your experience convinced you that the best way to operate this enterprise is by contract with the farmers rather than the immediate supervision of the company?

Mr. BAKER. For this emergency I would say very emphatically that the best thing is for the Government to do it, or the Department of Agriculture to lease the land, oversee it, perhaps hire the farmers to do it for them.

Mr. COOLEY. Following Mr. Coffee's questions yesterday of Mr. Brandes, how much of a man's time is taken up in the cultivation of the plant during the crop year?

Mr. BAKER. If this is done on a big scale, it is a 100-percent time job.

Mr. COOLEY. How many times do you cultivate the plant during the first year?

Mr. BAKER. We have a rotating growth. We will use the plant from one section this year, another section next year. If you have a 3- or 4-year cycle, you will have four sections. The first year the farmer is planting, he is irrigating, he is cultivating; the second year he is cultivating the second part, and so forth. He has got a cycle that is complete and his time is taken up.

Mr. COOLEY. Does it take a lot of labor to handle this plant?

Mr. BAKER. No.

Mr. COOLEY. In the cultivating season?

Mr. BAKER. No. It is mostly done by machinery.

Mr. HALL. Mr. Chairman, I have a couple of questions.

The CHAIRMAN. Yes.

Mr. HALL. I was interested in a statement you made with reference to research work. You mentioned that it was a very expensive proposition. Have you any idea, over the period of years, what that research work has come to?

Mr. BAKER. Well, I should say we have definite figures on that.

Mr. HALL. My impression is that—of course, I suppose for materials and so forth that work would be expensive, but my impression was that the average research chemist had a kind of hand-to-mouth existence and was not very well paid.

Mr. BAKER. Well, research is a very expensive thing.

Mr. HALL. So that apparently the great cost would be in materials rather than in the paying of salaries to research chemists.

Mr. ATWATER. Our intangible capital, which represents research and experimentation is \$1,987,814.

Mr. HALL. I didn't get that.

Mr. ATWATER. It is \$1,987,814. That represents experimentation and research; planting large numbers of plots of guayule rubber, tending them, analyzing them.

Mr. HALL. It cost nearly \$2,000,000 for research work?

Mr. ATWATER. Yes.

Mr. HALL. What do you pay research chemists?

Mr. ATWATER. Our chief scientist gets \$360 a month. This is not represented by wages of research scientists; it is represented by rent of land, by cultivation, by a long period of selection, of development of a shrub that is suitable for agricultural reproduction.

Mr. HALL. And that entire process has cost you, over a period of years, nigh on to \$2,000,000?

Mr. BAKER. Three million, four hundred thousand is the total cost. We depreciated it to a little over \$2,600,000.

Mr. HALL. You cannot very well depreciate money you paid out, can you?

Mr. ATWATER. We can take it off in tax losses. We have written off some of it.

Mr. HALL. You said you paid out \$1,900,000 in research work over a period of years.

Mr. ATWATER. That is right.

Mr. HALL. I was wondering how you arrived at the other figure.

Mr. ATWATER. Of \$2,600,000?

Mr. HALL. Yes.

Mr. ATWATER. Well, expenditures for tangible assets were \$1,282,000. Tangible assets have been regularly depreciated during recent years since this was definitely only an experimental project, and some of the intangible assets have been written off through tax returns.

Mr. HALL. That amount you gave there, does that include the activities of your various branches of the company, or just in America?

Mr. ATWATER. Just in the United States.

Mr. BAKER. We planted experimental plots of guayule in many places, Texas, Arizona, New Mexico, and throughout California and various other States, and got a certain amount of information. But unfortunately we did not follow it through sufficiently to be sure about all locations.

Mr. HALL. If you have any available break-down of the figures there I would appreciate it if I could see them.

Mr. ATWATER. Do you want to look at them now?

Mr. HALL. Yes.

Mr. BAKER. I want to dwell most sincerely and most earnestly on the fact that this project is too big for anybody but the Department of Agriculture to handle. We are not agriculturists. You have a bunch of specialists there, all the talent in the country you need, and you can get every man in the world that you need.

Mr. COFFEE. Mr. Baker, in that connection I want to ask a few questions. Your company is capitalized at \$3,000,000—600,000 shares at \$5 a share.

Mr. BAKER. We have written off a tremendous amount.

Mr. COFFEE. I understand that—

Mr. BAKER. Excuse me. Our capital is \$3,000,000, plus \$1,000,000 surplus capital, plus \$1,000,000—no; it is under a million—earned capital. We have got practically \$5,000,000 capital at the present time.

Mr. COFFEE. Do you have any bonds outstanding?

Mr. BAKER. None whatever.

Mr. COFFEE. Do you have any preferred stock outstanding?

Mr. BAKER. None.

Mr. COFFEE. In other words, the market value of your company's stock at the present time would be about $5\frac{1}{2}$ million dollars?

Mr. BAKER. Yes.

Mr. HOPE. He said a while ago this stock was selling at \$9. That would be \$5,500,000.

Mr. COFFEE. You mentioned you had 10,000 acres in Arizona.

Mr. BAKER. Yes.

Mr. COFFEE. Is that owned in fee simple?

Mr. BAKER. Yes.

Mr. COFFEE. And you estimate that at \$250 an acre in value?

Mr. BAKER. Yes.

Mr. COFFEE. I understood you to say you considered that land worth \$250,000.

Mr. FLANNAGAN. No, \$2,500,000.

Mr. BAKER. No, \$250,000.

Mr. COFFEE. That would indicate the land was only worth \$25 an acre. What is that land worth?

Mr. BAKER. Two hundred and fifty thousand dollars is a very reasonable estimate for it.

Mr. FLANNAGAN. I still say it is \$2,500,000. He said it was worth \$250 an acre.

Mr. COFFEE. Let me develop that. You have made a mistake one place or the other. Which is correct?

Mr. BAKER. \$250,000 is a good valuation for the total land.

Mr. COFFEE. In other words it is \$25 an acre valuation?

Mr. BAKER. Yes. I confused the figures at first.

Mr. COFFEE. Now, your plant at Salinas—what would you estimate the replacement cost?

Mr. BAKER. I should say \$400,000 under present conditions.

Mr. COFFEE. Your research work which you have conducted—what was embraced in that?

Mr. BAKER. At first we took about 100 varieties of plants out of Mexico. Those were planted and from that a selection was made. We selected out of those 100 different types and picked the good ones and gradually reduced the number until we had about 3 types. Those have been, by process of selection, developed to very high yielding plants, resistant to the various diseases that are known and entirely satisfactory for any conditions that we have been required to meet.

Mr. COFFEE. All of the expense that you have incurred in connection with the research work has been charged to expense, has it?

Mr. BAKER. Yes.

Mr. COFFEE. Or have you charged part of that to capital account?

Mr. BAKER. It has been taken into this account. We really carry it as a capital account.

Mr. COFFEE. You carry the entire amount of \$1,900,000 in your capital account, or has part of that been charged to expense?

Mr. BAKER. I would rather have Mr. Atwater answer that. Mr. Atwater, I made a statement that I want either denied or confirmed. All of our expenses in the development of the process have been capitalized, so to speak.

Mr. ATWATER. Not all of it. Nearly all of it, but not literally all. Our California experiment station is carried at a considerable loss. In recent years we have been charging that loss off through the profit and loss statement and not capitalizing it. It amounts, roundly, to \$100,000 out of this large sum. But it would not be correct to say all our expenditures have been capitalized.

Mr. COFFEE. I was referring to the expenditures for research work. In other words, the \$1,900,000.

Mr. ATWATER. Well, a part of this California operation is really research work. We have a chemist and a botanist and a clerical staff who operate the California property.

Mr. COFFEE. Have you charged any expense items, other than your tangible items, such as plant, and—

Mr. ATWATER. All of the research items were capitalized until a comparatively recent time. And some of them, as I said before, have been written off; the others not.

Mr. COFFEE. Have any other rubber companies indicated a willingness to assist in financing these processing plants?

Mr. ATWATER. No. We had a conversation with one of them at one time, but nothing came of it.

Mr. COFFEE. There has been no indication that they would be willing to put money into the processing of this rubber?

Mr. ATWATER. The proposal was in connection with a discussion as to buying an increased output from us of guayule rubber which we could not produce without going into some large expansion in this country, and there was discussion of their financing that expansion.

Mr. COFFEE. They were willing to do that, were they?

Mr. ATWATER. I don't know whether they would be or not. It was discussed only in a preliminary way.

Mr. COFFEE. Don't you feel that there would be an opportunity for some of the rubber companies in this country to get into this field, if the Federal Government would insure a fair price level to the growers and processors?

Mr. ATWATER. Well, I cannot answer for them. They never have; they have known of it for many years. The big four rubber companies all use guayule rubber, and we are under pressure to furnish more than we have. They know the situation. If they wanted to go into it, I should think they would have done so.

Mr. COFFEE. What price would this rubber have to bring to make it profitable to the farmers and processors to develop this industry in this country?

Mr. ATWATER. Well, that, of course, has never been done on a commercial basis, so that specific figures are not known. I should say, as a matter of opinion, that the present price of rubber would permit a guayule rubber operation in this country, if it were known that price would continue.

Mr. COFFEE. That is 22 cents?

Mr. ATWATER. It is 22½ cents.

Mr. PACE. No mention has been made of the 1,000 acres you own in California. What is the price of that land, excluding the plants?

Mr. ATWATER. We paid \$192,000 for it.

Mr. BAKER. That was many years ago, when land was much cheaper than it is now.

Mr. PACE. Let me get this straight. You have now on that 1,000 acres of land approximately 500 acres of these plants. Is that correct?

Mr. BAKER. That is correct.

Mr. ATWATER. Five hundred and fifty-eight.

Mr. PACE. And these plants that are on that acreage are selections that you have made through the years, starting with a stock out of Mexico? You have selected those, and reselected, and you have cultivated these plants to where these 550 acres are, in your opinion, the outstanding stock in the world today of this plant.

Mr. ATWATER. That is correct.

Mr. PACE. Therefore, the value of that 550 acres of seed plant, we will call it, is the practical result of many years of experimentation, of cultivation and treatment.

Mr. ATWATER. That is true. It represents a very heavy expenditure.

Mr. PACE. Then what value do you put on that 550 acres of selected plants that are there today to form the basis of any expansion that might come about, I might say, in the Western Hemisphere?

Mr. ATWATER. That is the end result of all our development work.

Mr. PACE. That is the polished diamond after you have gotten the rough off through the years.

Mr. ATWATER. Yes, sir; that is the end result of our development work, that and the seed and the process that goes with it for the treatment of the seed and so forth.

Mr. PACE. At what do you value that 550 acres?

Mr. ATWATER. The value we are now offering to sell at is \$2,600,000, this less the value of the tangible assets, which would be something just under a million dollars, is say, \$1,600,000.

Mr. PACE. That really is your big asset, and the result of your labors through the years, that stock of seed plants you have there.

Mr. ATWATER. And the knowledge of how to use them.

Mr. PACE. If I wanted to buy some seed from you today, what would you charge me for them?

Mr. ATWATER. We wouldn't sell them.

Mr. FLANNAGAN. Couldn't you go down to Mexico and get all the seeds you want?

Mr. ATWATER. Yes; anybody else can do what we did.

Mr. BAKER. It will take about 20 years to develop them.

Mr. PACE. You would get the same seed you got 30 years ago and would have to go through this whole process.

Mr. HOPE. If I go down and buy some seed in Mexico, what would be the difference between that, so far as the production of guayule rubber is concerned, and some seed I might buy from you, if you would sell it? What would be the difference in the result I would get?

Mr. ATWATER. I don't know. The guayule shrub as it grows wild in Mexico is of a vast variety of different strains. If you were expert enough, or fortunate enough, to pick out a good strain, you might get some reasonably good seed.

Mr. HOPE. What would the rubber content be?

Mr. ATWATER. It would range from 10 to 16 percent.

Mr. BAKER. That is a good shrub, wonderful shrub.

Mr. HOPE. Is that what the rubber content of the plant you process down there averages?

Mr. BAKER. Well, it varies. We have got one plant right now that is yielding an extraction of about 10 or 12 percent over the last few months. We have another plant that is doing from 12 to 14 percent. During some periods of the year we get a little better than that.

Mr. FLANNAGAN. What does your California plants yield?

Mr. BAKER. They yield about 19 percent.

Mr. HOPE. Suppose I went down and got that plant and brought it up to New Mexico, Arizona, or California and planted it, what would I get. Would I likely get a plant that would grow and mature and make rubber? What would be the rate of growth as compared with yours?

Mr. BAKER. Well, the first thing, your seed wouldn't sprout. You would not know how to sprout it. It took us years to learn how to sprout it. Then when you have got the seed sprouted and got the seedling, you wouldn't know how to grow it, you won't get any rubber.

It will go to foliage and won't make rubber. We went through all those stages. It took us years to find out and develop it.

Mr. HOPE. The way you cultivate the shrub has something to do with the rubber content?

Mr. BAKER. Absolutely.

Mr. HOPE. And you developed that method as a result of your experiments over these years?

Mr. BAKER. Absolutely. You have to have a period of growth and a period of dormancy. During the period of growth it makes new wood, but makes no rubber; then during the dormancy, as the soil dries out it produces rubber as a protection, and those things have to be balanced. It took a long time to learn and it took a great deal of money to find out how to do it. Dr. McCallum, who is the father of it, has done a very splendid job. Technically it is very satisfactory; financially, it has not been so good.

Mr. HOPE. Is there a problem so far as fungus and other plant diseases and insect infestation is concerned?

Mr. BAKER. The only serious thing I am familiar with is we found in certain locations we had root rot. We have got a plant that is resistant to everything else we have discovered. We don't know whether it is resistant to root rot or not, because we have not done enough with it. We have no root rot around California.

Mr. FLANNAGAN. When did you purchase the 1,000 acres in California?

Mr. ATWATER. About the beginning of the twenties. I don't know exactly.

Mr. BAKER. I think it was 1922.

Mr. FLANNAGAN. 1922?

Mr. BAKER. I think so.

Mr. FLANNAGAN. And when did you start developing that acreage in California?

Mr. BAKER. Right then, but we had previously done a great deal of work farther south than California, in Arizona, and Texas.

Mr. FLANNAGAN. When did you first start development in the United States?

Mr. ATWATER. In 1911.

Mr. FLANNAGAN. Whereabouts?

Mr. BAKER. I think that was done first in Texas. We bought in Arizona soon after that.

Mr. FLANNAGAN. Have you got development on the 10,000 acres in Arizona?

Mr. BAKER. No; we abandoned it, because the Salinas was a better location.

Mr. FLANNAGAN. What did you pay for that land in Arizona?

Mr. BAKER. We paid enough.

Mr. FLANNAGAN. Well, how much?

Mr. ATWATER. One hundred and seventeen thousand.

Mr. FLANNAGAN. You paid \$117,000?

Mr. ATWATER. Yes.

Mr. FLANNAGAN. Do you claim that is worth \$250,000,000 or \$250 an acre?

Mr. BAKER. No; the 10,000 acres are worth \$250,000, or \$25 an acre.

Mr. FLANNAGAN. You just stated \$250 an acre.

Mr. BAKER. You had me confused. That's without irrigation, you understand.

Mr. FLANNAGAN. Now, we get 1,000 acres in California that you paid \$192,000 for; is that right?

Mr. ATWATER. That is correct.

Mr. FLANNAGAN. And the Arizona land, \$117,000, the processing plant—when did you erect that?

Mr. ATWATER. About 1929 or 1930.

Mr. FLANNAGAN. And that cost \$250,000?

Mr. ATWATER. The factory, \$244,000.

Mr. FLANNAGAN. \$244,000, all right. Now, what else have you got in the United States which you propose to turn over to the Government?

Mr. ATWATER. Laboratory, buildings, farm machinery, nurseries, which are very expensive.

Mr. FLANNAGAN. What is the laboratory that is to be turned over to the Government worth? That is to be turned over?

Mr. BAKER. Yes.

Mr. FLANNAGAN. What is that worth?

Mr. BAKER. I don't know.

Mr. ATWATER. I haven't got separate figures for that.

Mr. FLANNAGAN. Was that included in your processing plant?

Mr. ATWATER. No.

Mr. FLANNAGAN. That is separate from the processing plant?

Mr. ATWATER. If you wish, I will read for the record the break-down that I have here.

Mr. FLANNAGAN. I would like to have it.

Mr. ATWATER. This is California. I am speaking now only of the experiment station at Salinas:

Land, \$192,052.94.

Machinery, implements, tools, automobiles, \$139,559.41.

The Alisal Nursery, \$74,996.20.

Factory, \$244,297.26.

Furniture and fixtures, including the laboratory, office, household, \$17,917.92.

That makes a total of \$668,823.73.

Other land in California, at Valley Center, in San Diego County, 400 acres, cost \$20,177.05.

That makes a total for tangible assets in California of \$689,000.78.

The intangible assets in California are \$1,709,297.18.

Mr. FLANNAGAN. The Government would not acquire the intangible assets.

Mr. ATWATER. That is the only value they are getting.

Mr. BAKER. That is the principal value they are getting.

Mr. ATWATER. They wouldn't buy these tangible assets without the intangibles.

Mr. FLANNAGAN. What do these intangible assets consist of?

Mr. ATWATER. They consist of the money we have spent in this development.

Mr. FLANNAGAN. All right. Give me a break-down on that, will you?

Mr. ATWATER. I will see what I have got. The amount of the intangibles is \$1,709,297.18.

Mr. FLANNAGAN. All right; give me a break-down on that.

Mr. ATWATER. I haven't got a break-down on that here, but I can tell you roughly what it represents, only in general terms. It represents the cost of experimental work from the inception of the California project, in operating various experimental plots, plantings and the expenditures for labor, wages and supplies at the large experiment station at Salinas, all of which, taken together, have resulted in the development we have achieved, and, as we discussed a moment ago, the end result of which is the seed and the growing shrub we now have on hand.

Mr. FLANNAGAN. Are any of these intangible assets represented by trade-marks?

Mr. BAKER. No.

Mr. FLANNAGAN. Good will?

Mr. BAKER. No good will; nothing for patents or good will.

Mr. ATWATER. There is nothing there that is not an actual dollar expenditure. There isn't a write-up of a dime.

Mr. FLANNAGAN. Then it represents only technical help and labor?

Mr. ATWATER. A large amount of labor and rent. We rented 5 acres of ground and planted guayule on it, and watched it, and we developed it for a period of years and tabulated the results. Then we rented other plots and did the same thing. This was repeated many times.

Mr. POAGE. Isn't it true, while you call that intangible assets now, you actually have as tangible assets, 548 acres of guayule plants, and the only place you have included it as an asset is in intangibles? You have that 548 acres, and you do not have that listed as a tangible asset at all, and the only place you put a valuation on it is as an intangible asset.

Mr. ATWATER. The acres carry the value of the land, of course.

Mr. POAGE. You told us the land cost \$190,000 and that you are carrying the land at cost. The land did not have guayule plants on it when you bought it?

Mr. ATWATER. No, sir.

Mr. POAGE. Therefore, the only place, as I understand it—

Mr. ATWATER. You are correct.

Mr. POAGE. Where you put a valuation on that guayule plant is actually in your listing of intangible assets, and you do not list the actual plants, even though they are tangible.

Mr. ATWATER. We have no way of putting a price on the plants.

Mr. FLANNAGAN. Since he has corrected you. You say this is carried chiefly in this 548 acres of plant. Did you charge off anything from year to year for depletion of this land—

Mr. BAKER. We charged off the difference between \$3,400,000—

Mr. FLANNAGAN. You charged off losses in operations and everything else, or you wouldn't be paying an 8 percent dividend. I know companies paying an 8 percent dividend are charging off everything for wear and tear and everything else.

Mr. ATWATER. We charged off roundly \$800,000 of this total investment in development work.

Mr. FLANNAGAN. Then, the development work in California has been \$2,500,000, of which you charged off \$800,000.

Mr. ATWATER. That is right, \$2,500,000.

Mr. FLANNAGAN. Do you tell this committee this company spent \$2,500,000 for development work in California?

Mr. BAKER. Absolutely.

Mr. PACE. It looks to me, in discussing these intangibles, as though you should place a valuation on these 500 acres of plants. Nobody is interested in the intangibles. You have a finished product here, you might say, that is worth a certain sum.

Mr. HOPE. Let me ask a question along the same line.

Suppose there was a demand for rubber plants in this country, as there might very well be, if the price of rubber got up around 30 or 35 cents per pound. If you put those plants on the market, say you were running a nursery and selling these plants, in computing your costs you would have to figure in all this research, wouldn't you, all this experimental work you have done, you would have to figure those costs in in determining what those plants cost you, wouldn't you?

Mr. ATWATER. That is what they cost us.

Mr. HOPE. Therefore, if you were putting them on the market and determining the price at which you could afford to sell, you would have to include all those costs in determining the value of the plants from the standpoint of making a sale, in determining a fair price.

Mr. ATWATER. That is true.

Mr. HOPE. That, of course, includes the seed and everything else.

Mr. FLANNAGAN. I would like to get at the facts of this thing. You said a very small percentage of your holdings are in the United States, as I understood it.

Mr. ATWATER. No; I didn't say anything about that.

Mr. FLANNAGAN. Well, your president did. A small part of the holdings of the company are in the United States?

Mr. BAKER. I should say about 25 percent of the total cost of the property.

Mr. FLANNAGAN. All right, 25 percent of the company's total invested capital is in the United States. Is that right?

Mr. ATWATER. I would have to examine the statement.

Mr. FLANNAGAN. Is that too high or too low?

Mr. ATWATER. I wouldn't know. I couldn't answer that.

Mr. BAKER. That is a guess.

Mr. FLANNAGAN. And yet you are valuing that 25 percent of your holdings on the books at \$2,398,000 for California alone.

Mr. ATWATER. I am not relating these California assets to any figure in the balance sheet. I am relating them to only what they cost.

Mr. FLANNAGAN. That is what I put down here. You said the intangibles are \$1,709,297.18; then you have your California plant, machinery, factory, furniture and fixtures, laboratory, \$680,000. That makes \$2,398,000. That does not include your Arizona land. In other words, with a company that is capitalized at \$3,000,000, you claim your books show you have assets in the United States of something over \$3,000,000, and then you state that that is only 25 percent of the whole.

Mr. ATWATER. We haven't said that is the book value of those assets, sir. We said that is what they cost.

Mr. FLANNAGAN. And you say it is just one-quarter of the whole.

Mr. ATWATER. We said that is what they cost. That is the only measure we have endeavored to put forth.

Mr. FLANNAGAN. That is after taking off wear and tear and so forth.

Mr. ATWATER. Yes.

Mr. FLANNAGAN. That is after taking off sales of rubber, the revenue obtained from the sales of rubber?

Mr. ATWATER. Those figures I gave you are actual cost.

Mr. FLANNAGAN. I understand that.

Mr. ATWATER. Not presently depreciated values; actual cost.

Mr. FLANNAGAN. Have you taken anything off for the revenue you received from the rubber sold?

Mr. ATWATER. Yes; I have taken that off, \$290,000.

Mr. FLANNAGAN. And this \$1,700,000 is the value of your intangibles after taking off the revenue received from the sale of rubber?

Mr. ATWATER. Yes; if I understand your statement.

Mr. FLANNAGAN. Total revenue received?

Mr. ATWATER. Yes; \$290,000.

Mr. FLANNAGAN. And you set your books up so that you segregated the part of your holdings in the United States from your Mexican holdings and your holdings down in the Islands?

Mr. ATWATER. Yes, sir.

Mr. HOPE. Speaking to this question of invested capital, when you talk about invested capital you include all these amounts you listed there as having been paid out for research and experimental work. Is that your estimate of invested capital?

Mr. ATWATER. Yes, invested capital, in the sense it is invested dollars. It is not—

Mr. HOPE. You probably have more than this 25 percent of your invested capital in the United States, have you not?

Mr. ATWATER. Maybe it is; I would have to look up the balance sheet.

Mr. HOPE. What is the total invested capital in this country? Have you the figure of your total invested capital and where it has gone, how much in the United States, and how much in Mexico?

Mr. FLANNAGAN. Here is what I am after. He says that one-quarter of this company is located in the United States, and he values those holdings at \$600,000 more than the capitalization of this company.

Mr. HOPE. I do not think the capitalization means invested capital. What I am after is total invested capital. Then we can see how much of it is here.

Mr. FLANNAGAN. I am basing it on the sales value of the stock, which is $9\frac{7}{8}$.

Mr. BAKER. This has no reference whatever to the balance sheet; it is cost.

Mr. HOPE. But your invested capital has no relation to the capital stock, no relation to the market value of the stock. If I understand the term right, it is what you put in the business. That is the way I am using the term, how much money you actually put in the business.

Mr. BAKER. There have been so many write-offs and readjustment of capital that I cannot tell you. I haven't had long enough acquaintance with the history of the business to tell you.

Mr. MURRAY. I think it is horse trading when you come to that. But what has been in my mind all the time is this. You have been running an experiment. We appropriate millions of dollars a year to agricultural colleges. I wish we could find out how much it costs

us per bushel to raise wheat on some of the dry land out West, where we are running experimental projects. The thing I would like to know about this industry is what the Government would acquire if they acquired your property. Do they acquire all the knowledge you have about the rubber industry?

Mr. BAKER. Yes; they do. They acquire the men we have in the States who have developed this, and our willingness to tell them everything we know. We are at your service, the whole organization, the whole company. If there is anything more we can do, we will do it. We are in this thing to help and not to hinder, and not to make money. We want to get it across; we want to help.

Mr. MURRAY. Your attitude, to me, shows you are not here trying to make money out of the war. That is my personal impression. If we do acquire this property it is easy to see that rubber at a certain price might be profitable or unprofitable, which applies to many other things raised on the land.

Mr. BAKER. That is right.

Mr. MURRAY. Therefore, it has to be subsidized. On the point Mr. Coffee brought out, how complicated is this conversion into rubber?

Mr. BAKER. It is not complicated; it is a mechanical process that grinds it up and floats off the rubber. It has some technical peculiarities that we know about and can handle, which we will turn over to the Government. We will turn the operating men over to the Government.

Mr. MURRAY. It is not any more complicated than making sugar or any other agricultural product that is processed. Why couldn't Mr. Coffee's suggestion be followed, where the production would be subsidized, the same as we do sugar beets, for instance?

Mr. BAKER. After the emergency subsidization of production by the farmers could be worked out; but as an emergency game—no.

Mr. HOPE. Isn't this the problem; it isn't a problem of processing this after growth. The problem is the growing?

Mr. BAKER. That is it.

Mr. HOPE. Your experiments have not been along the line of processing; they have been along the line of producing the plant?

Mr. BAKER. That is correct.

Mr. ANDRESEN. As a matter of fact, most of the money made by your company has come from the properties outside the United States?

Mr. BAKER. It has all come from Mexico.

Mr. ANDRESEN. And some from Sumatra?

Mr. BAKER. No; our Sumatra venture to date, I should say, has been a loss. Mr. Atwater says my statement is wrong—we have made a small profit in Sumatra.

Mr. ANDRESEN. Has your company paid dividends continuously since its inception?

Mr. BAKER. Oh, no; we have paid dividends 3 years.

Mr. ANDRESEN. The last 3 years?

Mr. BAKER. The last 2 years, 40 cents; and 20 cents, the other.

Mr. FLANNAGAN. You didn't pay dividends prior to 3 years ago?

Mr. BAKER. Then you would step back to about 1930. We paid handsome dividends then, but none from 1930 to 1939.

Mr. ANDRESEN. Were you operating during the World War, when rubber went up to \$3 per pound?

Mr. BAKER. Yes.

Mr. ANDRESEN. Of course, you made money at that time.

Mr. BAKER. Yes.

Mr. ANDRESEN. That was before you began your operations in California?

Mr. BAKER. No; we were operating in California at the time—no; Arizona.

Mr. ANDRESEN. Does your laboratory in California take care of all the research work for the entire company?

Mr. BAKER. No; it does not. Right now we are doing some research work on deresination, mainly because the Government needs the information. We shall follow that up with the installation of a pilot plant in Mexico, because we have no production up here. It is the only place we can continue it. We want that information ourselves, and so does the Government, but the research work done in Salinas has been for the benefit of Salinas.

Mr. ANDRESEN. And only for the benefit of your properties and experiments in the United States?

Mr. BAKER. Yes; we have had no experiments in Mexico on cultivation.

Mr. ANDRESEN. You mentioned your company was controlled, or 60 percent of the stock was owned, in Holland.

Mr. BAKER. Yes.

Mr. ANDRESEN. Is that a trust?

Mr. BAKER. Yes.

Mr. ANDRESEN. Can that stock be acquired?

Mr. BAKER. Yes.

Mr. ANDRESEN. Is that stock under the control of the present Government in the Netherlands?

Mr. BAKER. That is under the control of the present Government in London.

Mr. ANDRESEN. So that any of the money that might be paid for what the Government is getting here would not go to Holland directly, but would go to the Government in London.

Mr. BAKER. It would be held here.

Mr. ATWATER. The money is impounded.

Mr. BAKER. It is frozen here.

Mr. ANDRESEN. Are the present officers of your company all American citizens?

Mr. BAKER. Yes.

Mr. ANDRESEN. And you have power to act through the free government in Holland in connection with any transaction you might make with our Government?

Mr. BAKER. Yes. That is, the Legation executed to the satisfaction of our legal department a proxy which elected the present officers at the last annual meeting. Yesterday I had a conference with a member of the Legation and reported the possibility of a transfer, and no objection was made to it. We have the authority to make such a deal. I would naturally want to have it approved at a stockholders' meeting; but, so far as the Government going ahead with the business, we can act.

Mr. ANDRESEN. Of course, I assume that the Holland and Netherlands Government in London is just as interested in defense production as we are, in order to win this war.

Mr. BAKER. Exactly.

Mr. ANDRESEN. So that when it comes to the actual transaction we won't have any inflation of price to make money out of it, because I assume those interested in winning the war are interested in what we are going to be able to do to bring that about here in the United States.

Mr. BAKER. Decidedly.

Mr. POAGE. Comparing the merits of your Salinas operation, operating it by your company under a lease, am I right in assuming if you got this \$2,600,000 out of it you would be able to expand your Mexican operations, and possibly to some extent increase the amount of rubber we will get from that source?

Mr. BAKER. I wouldn't say that that is a fact. We have already, under the stimulation of the requirements of the war, expanded to our maximum extent, to the maximum extent of the available shrub.

We have doubled the capacity of one plant. Our average production in Mexico over 35 years was a little over 3,000,000 pounds. In 1940 we produced 8,000,000 pounds; last year we produced 10,121,000 pounds. This coming year we hope to produce 14,000,000 pounds, perhaps more. We are doing all we can.

Mr. POAGE. Will practically all that be brought into the United States?

Mr. BAKER. Yes. It is not good policy to refuse to sell anything in Mexico. This past year I suppose we sold 5 percent to the Mexican Government.

Mr. POAGE. Yes.

Mr. BAKER. As a matter of policy.

Mr. POAGE. But substantially all of it comes here?

Mr. BAKER. Substantially all of it comes here.

Mr. COFFEE. What, in your opinion, would be the maximum number of acres that might be devoted to this plant in the United States?

Mr. BAKER. Adjacent to Salinas?

Mr. COFFEE. Well, in the United States.

Mr. BAKER. Oh, in the United States? Well, I cannot see any limit. It is limited by your manpower and finances.

Mr. COFFEE. Your experimentation would indicate it could be grown in more States than Texas, Arizona, New Mexico, and California?

Mr. BAKER. We know what we can do in California; we are not so sure in other States, but we think Arizona and New Mexico as favorable, and probably Texas. But in Texas we have some root rot, and further information is needed there to state definitely.

Mr. COFFEE. You do not think it would be advisable in the other States?

Mr. BAKER. Possibly not.

Mr. HOPE. What is the potential acreage in California? You say there is no limit to this thing, and yet there are only three or four States where you feel it can be grown, and only one you are sure of, and that is California. What is the potential limit there?

Mr. BAKER. The potential limit in California?

Mr. HOPE. Yes.

Mr. BAKER. Well, the price of the land. The land there is very expensive.

Mr. HOPE. That is true, but you say there is no limit to the production in California. Would you say there are a million acres of land that could be devoted to this?

Mr. BAKER. Well, that is a question that would have to have some study before it is answered. I would say that fifty or a hundred thousand acres would not be an unreasonable figure to assume.

Mr. HOPE. I understood from your reply to Mr. Coffee's question that there was just a limited number of acres around this country on which this plant could be grown. That rather surprised me.

Mr. BAKER. I am talking about Salinas and adjacent valleys. You can go into other valleys, and there is a lot of land.

Mr. HOPE. You don't know that. You don't have in mind any particular site or any particular acreage on which you are sure this shrub can be grown?

Mr. BAKER. This thing the Government contemplates is so much beyond anything we have ever even thought of that we are not prepared to give you this information. Mr. Atwater says if you go over to some of the other valleys, he thinks no doubt there are possibilities there up to a million acres in California.

Mr. ATWATER. San Joaquin Valley, for example, in California.

Mr. HOPE. In Arizona you bought this land we have been talking about this morning for rubber production, did you?

Mr. BAKER. Yes.

Mr. HOPE. Has it been found unsuitable for that?

Mr. BAKER. Our early work was all done there, and our early work was a failure. Coincident with that we were doing work in various other places, notably in southern California, and a little in Salinas. As we got the results of these different places, we selected Salinas as the most favorable for the development, and we moved there. I could not say that our experience has been successful in Arizona, but it was due to our inexperience, I would think, and we see no reason why Arizona could not be cultivated successfully.

Mr. HOPE. You made no further attempts to produce on your Arizona lands since the time you thought you had solved the problem at Salinas?

Mr. BAKER. No; we made no further attempts.

The CHAIRMAN. And that is true of Texas?

Mr. BAKER. We made no further efforts.

The CHAIRMAN. Do you own any land in Texas?

Mr. BAKER. No; we do not.

Mr. ZIMMERMAN. In the event the Government does not buy your plant, do you plan to utilize all the seed you have now in the nursery?

Mr. BAKER. I think Dr. Brandes' idea is to plant that all immediately.

Mr. ZIMMERMAN. I mean, in the event the Government does not buy your plant, are you planning to utilize the seed you have on hand?

Mr. BAKER. We haven't any plans yet.

Mr. ZIMMERMAN. How much seed do you have on hand?

Mr. BAKER. Twenty-three thousand pounds; a little over that.

Mr. ZIMMERMAN. Twenty-three thousand seedlings?

Mr. BAKER. Yes. Twenty-three thousand pounds of seed.

Mr. ZIMMERMAN. And how many acres of land would be required to utilize those seedlings?

Mr. BAKER. Something around 55,000 acres, perhaps a little more.

Before everybody leaves, I want to bring up one subject I wish I could put it over to you gentlemen that we are not here to get money away from the Government that we do not deserve. That is not

our basis. We are genuinely wanting to help, and we think we have got something that the Government requires and will profit by, and will be a great help in the war. But it has been a great expense to develop this thing, and we feel we should be compensated for the money we spent on it.

Now, to complete this transaction quickly there has got to be something pretty definite in the law, because there is no authority established that will assume the responsibility of setting a price on what we have. In the absence of that, condemnation proceedings are necessary. In fact, that is the trend of thought of everybody we have talked to, that they cannot take the responsibility, that the only way to do it is by condemnation proceeding. If we resort to condemnation proceedings, we will necessarily have to ask more money. It is going to cost a tremendous amount to litigate; there is going to be a tremendous delay. Therefore, in consultation with various officials of the Government, we arrived at a plan whereby, if you gentlemen would incorporate in the bill a maximum amount that we could be paid, incorporate the principle that we would get back our actual expenses; then, subject to audit, we could close this thing up. You could have possession tomorrow if you wanted.

MR. ZIMMERMAN. I would like to ask one question. You are undertaking to sell the Government something here which you say has a potential value to the Government.

MR. BAKER. Yes, sir.

MR. ZIMMERMAN. You have all the machinery to operate, and all of the information necessary to make this business a success; haven't you?

MR. BAKER. Yes.

MR. ZIMMERMAN. You say you have 23,000 pounds of seed to produce seedlings which will develop 55,000 acres. That is the capacity of the seed available in this country at this time.

MR. BAKER. Yes.

MR. ZIMMERMAN. Now, tell this committee why, if the Government would give you a fair price for your output, why this company that is now in the business, and has spent millions in the development of the business and has all the information and all the details, why this company would not be tickled and glad to go out and expand their business and operate it, and sell its product to the Government?

MR. BAKER. That is something we would like very much to do, theoretically, but we haven't the ability to do it.

MR. ZIMMERMAN. Why?

MR. BAKER. We have in our complete organization in Mexico six operating Americans, everything else is Mexican. Those men are specialists on Mexico. We cannot take them away. We cannot replace them. The Government needs that rubber we are producing there most urgently. We cannot expand there.

MR. ZIMMERMAN. That is the set-up there? What is the set-up in this country?

MR. BAKER. We have got enough men here for the small operation we have got at Salinas.

MR. ZIMMERMAN. Let me ask you this question: What do you intend to do with these seedlings?

MR. BAKER. Eventually we will use them. We haven't any plans; we have been too busy.

Mr. ZIMMERMAN. What did you produce the seed for?

Mr. BAKER. We expected to use them sooner or later.

Mr. ZIMMERMAN. How long will the seed keep?

Mr. BAKER. It will keep indefinitely.

Mr. ZIMMERMAN. Well, if you ever expect to use these seeds, now when the Government is in dire need of rubber, and if the price were to be set high enough to justify you in going into full-time operation, why wouldn't this be the very thing you have been looking for all these years, and why wouldn't you be going into it?

Mr. BAKER. We would love it, but we couldn't do it quick enough to meet the emergency.

Mr. ZIMMERMAN. How can the Government do it any better than you can? Why can't you do it?

Mr. BAKER. We haven't the manpower.

Mr. ZIMMERMAN. Now, answer this; if you with all your experts, the men who have developed this business, the only men who know anything about it; if this company with all this build-up and set-up over a period of years, cannot go out and expand, tell this committee how a group in the Government that knows nothing about it can go out and do it.

Mr. BAKER. You have a lot of better men in the Government than we have.

Mr. ZIMMERMAN. Where are they?

Mr. BAKER. Dr. Brandes, for instance. He knows as much as anybody about guayule.

Mr. ZIMMERMAN. But Dr. Brandes cannot go out and do it by himself any more than any one man in your company could do it. Do you mean to tell me he has superior knowledge to those men who have developed this process?

Mr. BAKER. He is very well posted. We have only one botanist that has superior knowledge to Dr. Brandes.

Mr. ZIMMERMAN. Why could he not go ahead and do this if Dr. Brandes could do it?

Mr. BAKER. He is not an executive; he is a scientist.

Mr. ZIMMERMAN. Is the doctor an executive?

Mr. BAKER. No; but you have plenty of men in the Government that are.

Mr. ZIMMERMAN. If you could get a price for rubber, why couldn't you hire executives?

Mr. BAKER. We would like to do it.

Mr. ZIMMERMAN. Why don't you?

Mr. BAKER. We would be glad to do it, but you cannot meet your emergency requirements that way.

Mr. COOLEY. Suppose the services of Dr. Brandes and all the other experts of the department were made available to your company, and the Government cooperated with you to the fullest extent in trying to put across the project under a subsidy plan, such as we have been talking about? Why wouldn't that be the most feasible way to operate?

Mr. BAKER. I hate to appear to be opposing any effort—

Mr. COOLEY. Mr. Baker, here is the position you leave us in. You say your company has had most valuable experience, the most valuable of any men in the country. You acquired that over a period of 30

years. You set that experience up as an intangible asset and attach a very high value to it, and that is part of the consideration for this \$2,600 000. Then when Mr. Zimmerman questions you, you say, "Oh, no, our men are not the most valuable. Our men do not have the most information, but Dr. Brandes and the Government officials have." If we already have it, why should we buy it from you? Why should you turn this whole thing over to us and have us bury it down in the Department of Agriculture? Your men would go back to Mexico and devote their time to that plant, or your plant in Sumatra, and leave us up here high and dry with Dr. Brandes.

Mr. BAKER. We are turning over completely to Dr. Brandes our scientific man.

Mr. COOLEY. Why not let us turn over Dr. Brandes to you and subsidize you and let you go on?

Mr. BAKER. I am sorry I haven't made myself clear. This is not a scientific or operating problem; it is a big executive problem. It is an executive problem of an agricultural nature.

Mr. COOLEY. Where is the executive in the Department of Agriculture who is well qualified to handle a deal of this sort?

Mr. BAKER. You can get the best executives in the United States, we cannot.

The CHAIRMAN. Mr. Cooley, right at this point; the thing that sounds funny to me is, out of my experience with the business interests of the country, it is a little difficult for me to follow this. In other words, the large business groups of this country today, every one of them, complain about the Government attempting to do anything with their business, or interfere with them in their business, that the Government cannot do it. And you claim now that the Government can do it better than you as business people, and you would rather sell out and turn it over to the Government.

Mr. BAKER. We are a small company. We have six operating men in Mexico that know the guayule business.

The CHAIRMAN. The difficulty would be this: after the emergency is over, you would have the money and the Government would have what you have now that you are not making any money out of. That would be the final analysis.

Mr. HOPE. Wouldn't this be about the situation; isn't it exactly the same situation we have had in every line of expansion we are undertaking now in connection with the war? The Federal Government is going out and building dozens of munitions plants throughout the country, although we have got munitions companies in this country. The Federal Government is building more, and we are appropriating money. Just yesterday we passed a bill in the House to build a lot more shipyards. The Federal Government is doing those things because private industry does not have the capital; it does not have the authority that the Federal Government has to go out and expedite matters. Isn't that exactly the same situation you have in mind?

Mr. BAKER. Exactly. We haven't the money; we haven't the personnel.

Mr. HOPE. If you had to go out and raise the capital that would take some time, would it not?

Mr. ATWATER. We haven't got a set-up that would permit us to raise capital.

Mr. FLANNAGAN. How long have you been considering this sale to the Government?

Mr. BAKER. Ever since Mr. Anderson first presented his bill last June. I was in Mexico and got word of it.

Mr. FLANNAGAN. It has been agitated for several years, has it not?

Mr. BAKER. That may be; I wasn't with the company.

Mr. FLANNAGAN. Have you employed anyone here in Washington to represent you before the Government or any of the Departments?

Mr. BAKER. No.

Mr. FLANNAGAN. You haven't any paid attorney or agent here in Washington?

Mr. BAKER. None.

Mr. ATWATER. We haven't paid a dime to anybody in Washington.

The CHAIRMAN. Well, it is getting late, and the committee will now stand adjourned subject to the call of the Chair.

(Whereupon at 12.05 p. m. the committee adjourned, subject to the call of the Chair.)

GUAYULE RUBBER

TUESDAY, JANUARY 13, 1942

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 a. m., in the committee room, New House Office Building, Hon. Hampton P. Fulmer (chairman) presiding.

The CHAIRMAN. The committee will come to order. We have met this morning for the purpose of continuing the hearings on H. R. 6299. We have with us this morning Mr. W. H. Mason, of the General Tire & Rubber Co., Akron, Ohio.

Mr. Mason, we will be very glad to hear from you.

STATEMENT OF W. H. MASON, GENERAL TIRE & RUBBER CO., AKRON, OHIO

Mr. MASON. Mr. Chairman and gentlemen, there were a couple of things brought up last week that I would like to clear up. One of them was the Intercontinental Rubber Co.'s part in this thing. There seemed to be apparent on the part of some of the committee a thought, maybe, that the company was trying to get rid of the property which was not profitable to them and I merely want to say of our knowledge, that is not so.

This present demand for guayule production, and our interest in it, was promoted by the rubber people, particularly our company, with one object only in view, and that is to get a supply of rubber with which we could use synthetic rubber and there was another question which was brought up Thursday was as to production and what had been developed out of this research, and I think it is very easily answered. The answer is that this shrub which you see here contains twice as much rubber as the same shrub, the same size and same age in Mexico in the wild state. So that what they have done over this period of years in seed selection and cross breeding is to get twice as much rubber content out of a shrub of the same size, which has brought the price down, naturally.

Now, I would like to make clear to you here that the General Tire & Rubber Co. has absolutely no connection with the Intercontinental Rubber Co. We buy nothing from them. We have no financial interest in them, and to us, it is merely the question of getting a rubber supply.

The CHAIRMAN. May I ask at that point, who is responsible for this type of rubber plant not being developed and getting some results along with synthetic rubber and perhaps other types of shrubs, trees, or plants that would produce rubber in this country?

We have spent millions in research. Who is responsible for nothing being done until this emergency. Now, we are willing and are asked to spend millions for things that ought to have been done long before this emergency.

Mr. MASON. I think that the answer to that is economics. Guayule growing was disastrous to the men who grew it in the 1920's, but the Intercontinental Co. kept after it. We knew that it would develop rubber, or make rubber, but the cost then was 25 or 30 cents a pound. When rubber dropped, this interest in the industry in guayule also dropped.

The CHAIRMAN. Now, in connection with every other line of business, what does this Government do to protect them? For instance as to the manufacturers, this country under similar circumstances, is it not a fact, puts a tariff on imports to protect them in this country and to protect the manufacturer in this country?

Now, it would appear to me that the reason we have not developed the production of rubber in this country is because those interested in buying cheap foreign rubber had not been interested in rubber production in this country.

Now, this applies not merely to the people engaged in the rubber business, but to a number of other people, who are perfectly willing for the Government to go in and spend several millions of dollars taking this rubber company out of its business, and taking over what might have been developed in this country.

Now, I am wondering why this rubber company or you or some other concern interested in it would not be perfectly willing out of your experience and on account of the fact that your people believe that the Government cannot do it as well as you can, why you would not be willing, with a subsidized price to produce the rubber? If the Government can do it, certainly it would appear to me that you or this other company, or some other rubber company could do it much better than the Government. What would be wrong with that?

Mr. MASON. There is nothing wrong with it, sir.

In answer to that, we do not care whether the Government does it or wants private industry to do it. In either case the General Tire & Rubber Co. would be glad to take the rubber. We have no ax to grind either way. We have been in the position where we had a rubber supply, and we would like to continue that way.

However, if this committee feels that private industry should do this work, you will have no difficulty in getting a rubber company to take over the work.

The CHAIRMAN. As I understand private industry in everything that the Government attempts to do they object. They do not want the Government to interfere. "Because we can do it better than the Government."

Now, let me ask you this, if this rubber company has only one interest, and that being to be helpful in this emergency, if they do not want to take over under a subsidized proposition, would they be willing to sell their seed at a very reasonable price to be helpful in this emergency, to some other good company that would be perfectly willing to take it under a subsidized plan?

Mr. MASON. Of course, I cannot speak for the Intercontinental Co. What they do is up to them. I can only say that I feel that they would

be willing to cooperate in any way and I think that they should be commended, rather than anything else, for experimenting with guayule in this country as long as they have until they have now reached a point where we have some seed that may do us some good; but I think if the committee decides that private industry should do it rather than the Government, you would have no difficulty on that score, although we much prefer to stay out of it. We are not rubber producers. We are rubber manufacturers.

Mr. ANDRESEN. Does your company use guayule rubber?

Mr. MASON. We have not been using it. We used it during the last emergency and in the 1920's, when rubber went to \$1.20 a pound, as did every other company; but in the meantime far eastern rubber has been coming in in such quantity, and we could buy that cheaper, so that we have bought that, and the Goodrich Co. and the Firestone Co. have been using guayule satisfactorily.

The first that we used was within the last 2 weeks, when we had some brought in to demonstrate whether we could make tires from guayule exclusively, which we have done.

Mr. ANDRESEN. I assume that you noticed the press release of yesterday from Jesse Jones, wherein he stated that the Government was preparing to spend \$400,000,000 for the development of synthetic rubber.

Mr. MASON. Yes, sir.

Mr. ANDRESEN. And that they intended to produce approximately 400,000 tons in 1943.

Mr. MASON. Yes, sir.

Mr. ANDRESEN. Can synthetic rubber be used for the production of automobile tires, or are synthetic tires being produced from these synthetic products without the use of other rubber?

Mr. MASON. They never have been produced satisfactorily. Mr. Collyer, the president of the Goodrich Co., appeared before the committee of the Senate within the last month and said that they are making the nearest thing to an all-synthetic tire which there is, and he there testified that that was not satisfactorily used alone; and that has been the experience of all of the rubber companies.

Synthetic makes a fine tread, but so far it has not reached the stage where it can be used in the body of the tire, because it is too brittle and cracks easily.

The ideal tire is the tire made with a real rubber body and a synthetic tread.

The need for real rubber, either from the Far East or South America, or guayule, is more important than ever, in view of the program advanced by Mr. Jones to the effect that with that 400,000 tons of synthetic rubber you are going to have to have at least two or three hundred thousand pounds of real rubber in order to make tires which can be used for military purposes.

Moreover, there is one point there that I would like to bring out, and that is that the report of the Tariff Commission in September of the past year set the price per hundred thousand long tons production of synthetic rubber at \$100,000,000 capital expenditure, and the same investigation showed that the guayule could be produced in the same amount for about \$20,000,000.

I would like to point out to you that the program advanced by Mr. Jones bears that out entirely—the cost is \$400,000,000 for 400,000 tons, and the same amount of guayule, granting that you can find the acreage for it, would cost you, instead of that, one-fifth as much.

Mr. PACE. One-fifth?

Mr. MASON. One-fifth.

Mr. ANDRESEN. If the far eastern supply of rubber dries up, it would be rather difficult then for us to secure the production of synthetic rubber without some real rubber like the guayule or South American rubber to aid in the production of it?

Mr. MASON. Unless there is some tremendous unforeseen development in synthetic production, that is very true. The synthetic without real rubber would be—well, not useless—but certainly would not be anywhere near as satisfactory as with real rubber. Just to cite an example, in Germany they started this war building 65 percent synthetic and 35 percent real rubber into their tires and had to just reverse that through their experience, and are now using 65 percent real rubber and 35 percent synthetic. Most of the synthetic is used in the tread.

Mr. ANDRESEN. Where are they getting their rubber?

Mr. MASON. They had quite a supply; and where they are getting the rest of it from, I could not say.

Mr. FLANNAGAN. What supply do we have on hand of real rubber?

Mr. MASON. Well, it is difficult to say, because no information has been given out since the war started; but in round figures—and they seem to still be using those—we had either here or afloat 600,000 tons of rubber on the 7th of December.

Mr. FLANNAGAN. On the 7th of December?

Mr. MASON. That is right.

Mr. FLANNAGAN. That is around a year's supply?

Mr. MASON. Under normal times, that is a year's supply; but, with the program as outlined by the President last week, it is nowhere near a year's supply, because just taking the tanks, planes, and battleships in that program will take 400,000 tons of rubber in the 2 years.

Mr. HOPE. What are the possibilities in the way of reclaimed rubber?

Mr. MASON. Well, that depends on many factors, including facilities for reclaiming and the ever-diminishing supply of rubber which can be reclaimed. You cannot reclaim it indefinitely, because each time you use it a great deal is taken from it. It can only be used, naturally, with new rubber to rejuvenate it; but I think the figures or estimates on that, so far as the industry is concerned, is 500,000 tons in the 2 years. We are figuring on 2 years, because we believe by the end of that time we will have developed other sources of rubber; but in that period that is what we have to figure on.

Mr. HOPE. Can you use reclaimed synthetic rubber?

Mr. MASON. No, sir. We do not yet know how to reclaim synthetic rubber. There may be some way; but if there is, it has not been found out.

Mr. FLANNAGAN. If I understood Mr. Hope's question, it was this. "Can you use reclaimed rubber in connection with synthetic rubber?"

Mr. MASON. I beg your pardon. Yes, you can; but you cannot reclaim synthetic rubber.

Mr. HOPE. What are the possibilities in the Western Hemisphere so far as supplies for the next 2 or 3 years are concerned?

Mr. MASON. Why, I believe that there is a good deal of rubber in South America, but it is so difficult of access that, so far as we have been able to determine, it is going to be very difficult to get that out, because of the men, the labor that is going to be required to cut the roads through the jungles where the existing trees are.

The Department of Agriculture, as you know, has been conducting experiments down there and have been planting a number of trees which will be available in 7 or 8 years, but in the meantime I do not think that we are going to find that there is going to be any real large amount of rubber coming out of Central or South America, although we sincerely believe every effort should be made to get everything we can from there. We do not know how much we can get from there. There is a blight in many of the trees down there.

Mr. HOPE. Can Hevea rubber be grown as well in the Tropics in the Western Hemisphere as it can in the Dutch Indies?

Mr. MASON. Of course it originated down there.

Mr. HOPE. So I understand.

Mr. MASON. And we believe that it can be. The business down there went to pieces for several reasons. One was labor and the other was because of this fungus growth which it has, and in the meantime the scientists have licked that, insofar as the Dutch East Indies are concerned, and it seems that there is no reason to believe that our scientists cannot do the same thing in South and Central America; but that again is a conjecture and a long ways in the future.

Mr. HOPE. What brought about the shift of production from South and Central America to the Far East? Was it just a matter of those people being more enterprising over there?

Mr. MASON. That was it, to a great extent, and then, of course, the economic effect. Labor in the Dutch East Indies is much cheaper than labor in South America, and then they had this blight on the trees in this hemisphere, and the people were not seemingly as much interested in the development of them as they are now and taking constant care of them, and they did not get at it there until England, looking for new crops for the Far East, took rubber over there. They have developed it far beyond any stage ever reached on this hemisphere, and then, because of cheap labor, they were able to take over the entire production, practically.

The CHAIRMAN. What about the possibilities of rubber in Brazil?

Mr. MASON. It is there. It grows wild there and in the jungles there are many millions of rubber trees which could be used, but they are so difficult of access that the probabilities are even if we got the rubber at the very lowest cost, it would probably cost us from 25 to 50 cents a pound to get it out of there, because of the necessity of building roads and other difficulties with which you would have to contend.

The CHAIRMAN. Do you not think it would be much better on the part of our Government and our people to spend more of our money in developing rubber there and helping those people than it would be to encourage the production of cotton in that country?

Mr. MASON. Well, sir, my only answer to that, and the opinion which our company has reached, is that we have reached the point where we do not think we should run the Government. There was a time when businessmen may have had that idea, but we do not have it any

more. We think that if the Government wants to do that, that is their business. We are interested solely in the development of guayule, because we know that it produces real rubber, and we know that it grows here, and we know that time is short and that it is essential to get the seed in the ground.

Now, as to anything else, in our opinion, as to the Government policy, it is not for us to even comment on.

Mr. COFFEE. Mr. Mason, I would like to ask you this: What do you think the cost of this synthetic rubber will be per pound?

Mr. MASON. Well, your capital expenditure—I am not qualified to tell what it would cost per pound, other than to quote the minimum figures which were cited and can be cited by any one, which Mr. Jesse Jones gave of 30 cents a pound in great quantity production. The capital expenditure in that instance was \$100,000,000 per 100,000 long tons.

Mr. COFFEE. I understood your statement a few minutes ago, that it would cost five times as much to produce this synthetic rubber as guayule.

Mr. MASON. In capital expenditures, Mr. Coffee.

Mr. COFFEE. Capital investment is taken into consideration in calculating the cost of production, is it not?

Mr. MASON. I do not know whether they do that or not down here in their figures; but I merely quote that figure from the Tariff Commission's report, which says that a capital investment of \$100,000,000 will be necessary for every 100,000 long tons of synthetic rubber produced, and that was pointed out by Mr. Jones in his announcement yesterday, and the same source quotes the price of guayule production at \$20,000,000 capital investment.

Then, in order not to have a confusion of the figure of 30 cents a pound, which is much less than the price quoted as the price of synthetic which was cited by Mr. Jones as the minimum which could be reached even in quantity production—now, how he arrived at that figure I do not know; but so far it is costing much more than that so far as that is concerned.

Mr. COFFEE. Well, I think that point should be cleared up a little bit, so that we would know what the relative costs are.

Mr. MASON. I can give that figure. Now guayule rubber is selling at 17 cents a pound or has sold at 17 cents a pound, and synthetic rubber is now selling at 60 cents a pound.

Mr. COFFEE. Is 17 cents a pound a profitable basis for those producing guayule rubber? Can it be produced at that price at a profit?

Mr. MASON. I can only, again, not having grown it, pass on to you the statement made to me by Dr. McCullum, who is manager of the Salinas plant of the Intercontinental Co., who told me they could produce it at from 15 to 19 cents a pound, profitably.

Mr. COFFEE. Well, that brings up this question: If the Reconstruction Finance Corporation subsidiary—the Rubber Reserve Corporation—that was set up to purchase rubber, would make a contract to pay about 20 cents a pound for guayule rubber for the next 5 or 10 years, would not that encourage the Intercontinental Rubber Co. to go ahead and expand production, and would it not encourage other companies to go into the field to produce this rubber?

Mr. MASON. Putting the question that way, I am not sure that I can answer it, Mr. Coffee, because whether 20 cents a pound is the proper figure, I do not know. I do know, however, that if the committee feels that private industry should handle this business rather than the Government, that there would be no question about private industry going into it.

Mr. COFFEE. My thought on that question is this, that this guayule rubber production should be encouraged in this country, for continued production. It should be an industry to be encouraged to continue as a good insurance policy.

Would it not be in the interest of the Government and in the interest of the people who are interested in producing this rubber for the Government through this R. F. C. subsidiary to make a long-term contract to purchase all of the production of guayule rubber that could be produced in this country at a figure that would result in a profit to those undertaking to develop it and lend them money with which to develop it? In other words, do just what the Government is now doing in trying to facilitate the production of synthetic rubber. Do you not think it would be cheaper for the Government in the long run to have private industry enter this field, to encourage the production of rubber, rather than have the Government take over the field as a Government enterprise entirely?

Mr. MASON. The answer to that, sir, would be "Yes." We think that that would be the preferable way to do it, but rather than have anything hold up the program, we do not care how you do it. We believe it should be done, and now, and that after the seed is in the ground, there is plenty of time to determine how the rest of the program is to be carried out.

Mr. COFFEE. As I understand it, there are about 23,000 pounds of seed on hand.

Mr. MASON. But that will mean next fall there will be 230,000 pounds of seed on hand, and if we do not get it in very shortly, we will still have 23,000 pounds of seed next fall, and that is the thing that we wish to guard against.

Now, how that is to be carried out, I do not know. I am in thorough accord with you. We believe private industry probably might be able to do it with a saving to the Government.

Mr. COFFEE. If we could get this 23,000 pounds of seed planted in the nurseries, it would be a year, then, would it not, before those seedlings could be transplanted?

Mr. MASON. Yes; it would be in the late months of this year.

Mr. COFFEE. And that, as I understood it from former testimony, would plant about 55,000 acres.

So our immediate problem is to get this 23,000 pounds of seed in the nurseries.

Mr. MASON. Yes, sir.

Mr. COFFEE. And the Government I think should see to it that in some practical manner that seed is put in nurseries.

Mr. FLANNAGAN. Mr. Coffee, as I understand it, you say that it would be much better if the Government would encourage private industry to do this rather than to step in and do the job itself?

Mr. COFFEE. That is correct.

Mr. FLANNAGAN. I agree with you.

The CHAIRMAN. Is it not true that the important thing now is to get those seed into the ground so that we will have a year's start?

Mr. MASON. Yes, sir. There is one other point I would like to make in connection with that; not wanting to seem too optimistic; but at the same time believing that the committee should realize that there is in existence a plan advanced by the foremost rubber chemists of the country—so admitted by your Department of Agriculture and by Mr. McCullum, and every one of the rubber manufacturing companies in the manufacturing end of the business, advanced by Dr. Spence of Leland Stanford University, whose name has been mentioned before. Dr. Spence says that he has grown guayule for a period of less than a year and harvested it after first de-seeding it, when getting 10 for 1 from the seedling, in the way of seed, and has gotten from each acre of ground better than a thousand pounds of rubber, by broadcasting. If that plan is true—and we believe it should be tried with the seedlings now available in the Intercontinental nurseries in Salinas; if that plan is true, it would mean that you would immediately get a fair supply of rubber, when compared to the synthetic production, this year, and you could next year get really a big crop, and moreover Dr. Spence claims that that rubber can be produced under that system for 10 cents a pound. We do not know that that is so. On the other hand you have Dr. McCullum, who has spent his entire lifetime in the rubber industry, who advocates another plan, but certainly it merits a trial, because it may be a solution to the rubber, natural rubber problem which is far superior to that system under which it has been grown in the past.

Mr. COFFEE. I think we can visualize this industry as something similar to the sugar beet industry in this country. We recognize now the necessity of having sugar produced on the continent, because of a threatened shortage of supplies from off shore areas. It is recognized that sugar can be produced more cheaply in the tropical islands than it can be on the continent, but that domestic sugar beet industry has been encouraged and protected by the Federal Government, and as a result we have a domestic industry under private enterprise that is going to play a very important role in supplying the sugar demands of this country during this emergency.

Now, had the sugar beet industry been started as a Government project it probably would have lasted a few years and then been thrown overboard; but since it developed through private enterprise, it is a lasting industry and probably will continue indefinitely.

Now, it seems to me that some method should be devised that would continue the guayule rubber production as a lasting domestic industry for the production of a portion of our rubber and the protection of our own people, even though it might cost a little more at certain periods than rubber that could be obtained from foreign countries. In the long run, it would be much to the advantage of the Government to have that production continued in this country, even though it might require a subsidy during certain periods.

Mr. MASON. That, sir, is a question of policy which this committee is much better qualified to determine than I am. I can only say that we believe sincerely in this program, and one reason for the interest in it is, Mr. O'Neil, head of our company, has five boys of military age and three of them are already flying for the country, and he thinks

that this is the most practical source of rubber to be developed with synthetic, and we are only asking that it be speeded up, and any policies, of course, can better be determined by this committee.

Mr. COFFEE. Are you in favor of the bill as it is written?

Mr. MASON. We, sir, are in favor of any bill that you gentlemen see fit to write which provides for the immediate planting of all available seed and the development of guayule rubber. In other words, we do not want to enter into any controversy as to who will run it, the Government or business. We believe that business, probably, could do it better; but we do not think that it is a big issue. We believe that it should be done and, if in the opinion of a majority of the members of the committee, it can be done better by private industry, we will be tickled to death to have it done that way. If, on the other hand, a majority of the committee feel that the Government could do it better and that it should be turned over to the Government, we will go along with that. We merely want the rubber.

Mr. COFFEE. Do most rubber company officials that you have discussed this matter with feel that it can be done better by private industry with Federal assistance than under Government operation?

Mr. MASON. I cannot answer that question, Mr. Coffee. I have not talked it over with other people. It came up here last week.

Mr. COFFEE. What would be your own view on the question?

Mr. MASON. My view and that of the heads of our company is that probably industry could do the milling and processing of it better and more cheaply than the Government could do it.

Mr. COFFEE. And do you not feel that you could contract with farmers to produce the guayule?

Mr. MASON. There is no question but what we could produce it, Mr. Coffee. It can be produced, in our opinion, quickly and probably more cheaply, so far as the processing is concerned.

Now, as to agriculture, the Department of Agriculture is undoubtedly qualified better than we are to answer that. We are not farmers. They could answer as to who could grow this stuff better. But, when it comes to the processing of it, we believe private industry can do it better. However, I want to make it clear that that would not be an issue, because we think that everything should be done that is necessary to provide a supply.

Mr. COFFEE. Going now to the farmers, do you not think it would be more practical to offer the farmers a certain price to produce guayule, and encourage production of rubber in that way, giving them such Federal supervision as may be necessary?

Mr. MASON. I cannot answer that. I am not a farmer. I do not know. Our own personal preference would be to have the farmers do it rather than the Government, but that is merely a personal opinion, and the company does not claim to be farmers or know anything about farming or how it could be done best, or cheaper. We do not know.

Mr. COFFEE. I think that there are vast reservoirs of energy ready to go into it at any time that farmers are offered an opportunity to produce rubber at a profitable price.

Mr. PACE. This is about the middle of January. I understand that these seed ought to be planted around the 1st of March, within about 45 days. Just, for example, suppose we turned this thing over to you

this morning. How long do you figure it would take you to contact and initiate and negotiate contracts with farmers and get them to change their entire farm plans, plow up the fields they have planted, and make arrangements, other arrangements, get experienced persons to teach them how to go about it? Could you whip it into shape by the first day of March?

Mr. MASON. That is a hard question, Mr. Pace. We are not farmers. There has been a lot of preliminary work done in the Salinas Valley already. It is not going to come as any great surprise to the farmers in that area if the guayule program goes through, and I think that they have already made certain preparations. Moreover, the big plantings will not be made immediately. It is the nurseries which must get the seed and get them out. You do not have to get at it so that it means that you have got to take a great many acres.

Mr. POAGE. How many acres will it take to plant that seed?

Mr. MASON. I cannot answer that, without checking it up. I am not sure. It is planted very close together.

Mr. PACE. It is planted in open fields?

Mr. MASON. Open fields with an overhead sprinkler system.

Mr. PACE. You do not have to have any special soil or special fertilizer, but just take any land and put a sprinkler system out there?

Mr. MASON. Yes, sir.

Mr. PACE. Where are you going to get the pipes for the sprinkler system?

Mr. MASON. We figured that you would take care of that for us.

Now, as I say, and as I said to Mr. Coffee, we do not care; we do not think that is an important issue, although we have a personal idea of it; but the important thing is to get the seed in. We do not question that the Government could do the job, but whatever the policy of this committee would be would be agreeable to us.

Mr. HOPE. Let me ask you about this matter. When are we going to get into rubber production? Assuming that we follow Dr. Spence's plan, and try to make it in one year, that is in 1943. We have been talking about taking the seedlings out of the nursery this year, which means that we would set them out this coming fall?

Mr. MASON. Under Dr. Spence's plan, they would not be set out. They would be planted again from seed. You do not set out any plants. You just take the seed and plant them.

Mr. HOPE. I mean, in connection with the nurseries, you are going to harvest these plants in the nurseries, then?

Mr. MASON. No; Dr. Spence's plan calls for broadcasting or sowing the seed in the open field and just leaving them there. There is overhead irrigation for a while, but there is no cultivation. There is no other cost except letting them grow for 9, 10, or 11 months, and taking the seed off and then plowing them up and processing them.

Mr. HOPE. In that way we would not go through this one year in the nursery then?

Mr. MASON. No; under his plan, you do not. You sow them and get an increased volume of rubber, according to Dr. Spence, from the fact that when you are through, you have a very small rubber content, very small plants instead of having 8,000 to the acre, you have many times 8,000 plants to the acre, because they are scattered in there very thickly.

Mr. HOPE. Your seed would not go as far under that system?

Mr. MASON. The seed would not go as far; no, sir.

Mr. HOPE. Nobody is thinking about doing that for this year, I take it.

Mr. MASON. No.

Mr. HOPE. What you are thinking about now is using the seed that is available, planting it in the nurseries, and getting the seedlings, but you think the Spence plan might be desirable if we get enough seed from these that are being planted this year in the nurseries.

Mr. MASON. There would be no difference in the amount of seed, Mr. Hope.

Mr. HOPE. I mean, you would take the seed that you can get this year and plant them in the nurseries, and use the seed from those plants next year to broadcast under the Spence plan?

Mr. MASON. Yes, sir; if this plan is worked out, that thing could be done, whether they are planted in the nurseries or in the open field, under the Spence plan, you get the same amount of seed, and in the meantime you have got an ample opportunity to test out the theory and find out whether it is so. It may not be.

Mr. PACE. How does he propose to gather the seed when they are sown broadcast?

Mr. MASON. They have, the Intercontinental, has perfected machinery for doing that.

Mr. PACE. Here is a picture of the machinery, which seems to be prepared exclusively for row planting. How would you operate that machine on a broadcast crop?

Mr. MASON. I cannot tell you, although from the ingenuity shown in the development of machinery, I do not think it would be a real problem.

Mr. COFFEE. That machine is designed to harvest row crops.

Mr. MASON. Yes, sir; I think that they could design another one using the same vacuum system for broadcast.

Mr. COFFEE. Mr. Chairman, I would like Mr. Anderson to clear up one point which we undertook to clear up a minute ago, and that is how many acres would be required for nurseries for the 23,000 pounds of seed now available.

Mr. ANDERSON. According to Mr. Brandes, that would take approximately 700 acres. He said that it might run between 700 and 1,000 acres.

Mr. COFFEE. And land for that is available now in California?

Mr. ANDERSON. In answer to that, Mr. Chairman, I would like to read a brief telegram I received in response to a wire I sent to Salinas Saturday inquiring as to the available land for the nurseries. This reads:

Plenty suitable acreage can be secured here. Meeting of Farm Bureau Monday and Hart assures full cooperation with guarantee plenty land at reasonable figure as patriotic duty. A sure full cooperation our organization and will put man out in field if necessary. McCallum—

that is Dr. McCallum of the Intercontinental—

also assures plenty of land here but advises immediate action so land can be prepared and machinery built as time is very limited to get it all done.

Mr. HOPE. Now, the land, then, referred to in that wire, is the land necessary for the nurseries.

Mr. ANDERSON. That is right.

Mr. HOPE. They are not referring to the vast amount of acreage, 75,000 acres, or 50,000 acres, or whatever the figure will be that has been referred to as being necessary here.

Mr. ANDERSON. No; they are not.

Mr. HOPE. Then, we do not need to worry about that, because the immediate need, of course, is for proper acreage for the nurseries. And, you say that you find that available?

Mr. ANDERSON. Yes.

Mr. FLANNAGAN. There is just one question that I would like to ask. If I understand correctly, the shrub yields tenfold in seed each year.

Mr. ANDERSON. That is according to Dr. Brandes of the Department of Agriculture. At the end of the first year the yield is tenfold.

Mr. MASON. And many more times that at the end of the second year. The plants that they have now, covering 540 acres will give a tremendous amount of seed. As he indicated, they had seed for only 45,000 acres just a few months ago, and they have been seeding very rapidly since then so that it has jumped up to 60,000 acres. You will get a great deal of seed from those plants.

Mr. POAGE. Let me ask you a little bit about prices. You said a while ago, as I recall, that this guayule rubber was selling for around 17 cents, and that you could produce it for from probably 15 to 19 cents; say 20 cents, anyhow.

Now, if you were getting 20 cents for the rubber, what price would you pay the farmer? I know that we will have to face that problem probably in 1 or 2 years. What price would that net the farmer on the shrub? He does not sell the rubber, as I understand it. The farmer grows this shrub, and if it is put out to private industry, as we have been talking about, the farmer is going to have the shrub to sell. He is not going to have rubber to sell. He is going to have this shrub for sale.

Mr. MASON. I could not answer that question, because that price I gave was based on the growing of the rubber by the company. That figure was given to me by Dr. McCallum, and I believe was based on that.

Mr. POAGE. Are we not going to have to know what the farmer could get out of it to be able to determine whether there would be any profitable way in which you could have private enterprise handle this thing, because after all, the farmer is going to be given a price for the shrub. It does not make any difference whether the rubber is sold for \$1 a pound, if the farmer only gets 10 cents a ton and all of the rest of it goes to processing we are not going to have any of it grown.

Mr. MASON. The only answer that I can give to that is already in the record. A farmer out there who grew guayule in the 1920's and then afterward, having grown it for 4, or 5, or 6 years, when he discontinued growing it, when guayule was selling for 10 cents a pound, the rubber was selling for 10 cents a pound, said that it was the most profitable crop he had in the field.

Mr. POAGE. Is that rubber produced in Mexico? What kind of a method does the company follow down there?

Mr. MASON. I could not answer that of my own knowledge. I believe that they pay the Mexican labor for gathering, and they go out and gather the wild guayule wherever they can find it.

Mr. POAGE. And pay the landowner nothing?

Mr. MASON. I do not know about that.

The CHAIRMAN. Mr. Mason, if you have no further statement to make, Mr. Anderson wants to make a short statement. I want to insert in the record in connection with Mr. Baker's statement, a letter giving certain figures.

INTERCONTINENTAL RUBBER Co.,
New York, January 10, 1942.

HON. HAMPTON P. FULMER,
Chairman, Committee on Agriculture,
House Office Building, Washington, D. C.

DEAR MR. FULMER: I fear that statements made at the hearing on January 8 failed to clarify the business of this company and the property referred to in H. R. 6299. A condensed statement of expenditures for research and experimentation on guayule shrub in the United States to December 31, 1940, by Intercontinental Rubber Co. and wholly owned subsidiaries, now dissolved, as shown by the books of account, is as follows:

	Total	Arizona	California
Expenditures for intangibles:			
Originally capitalized.....	\$1,987,814	\$278,517	\$1,709,297
Originally charged to expense.....	315,682	208,442	107,240
Expenditures for tangibles originally capitalized.....	1,382,547	693,546	689,001
Miscellaneous supplies, etc., at Dec. 31, 1940.....	21,756	6,480	15,276
Total.....	3,707,799	1,186,985	2,520,814
Less proceeds from rubber produced.....	290,007		290,007
Total.....	3,417,792	1,186,985	2,230,807
Less expenditures that have been charged off in tax returns as depreciation or expense.....	773,099	553,402	219,697
Total.....	2,644,693	633,583	2,011,110

Intercontinental Rubber Co.'s commercial production of guayule rubber is wholly in Mexico, where it has operated for 35 years and expects to continue indefinitely. Production in 1941 exceeded 10,000,000 pounds and is expected to reach 14,000,000 pounds in 1942. All this production is from native wild shrub.

The stated United States expenditures include the cost of a 1,000-acre experiment station at Salinas, Calif., 400 acres in San Diego County, Calif., and 9,500 acres near Tucson, Ariz. All three were acquired in connection with the botanical research and experimental work that has been carried on for 30 years. The expenditures include the cost of tangible property other than land and much intangible property, briefly described as follows:

(a) Provision of water supply, the erection and maintenance of buildings, laboratory, and shop, the construction of an extraction plant having a capacity of 30 tons of shrub per day, and the provision of agricultural machinery and equipment.

(b) Development of special agricultural machinery for seeding, planting, cultivating, and harvesting guayule.

(c) Growing experimental crops of guayule on rented land in more than 50 different locations in the southwestern United States, each of which was cultivated, harvested, and tested.

(d) Continued investigation to determine the treatment of seed and to select or develop strains of guayule susceptible of nursery growth and transplanting and producing uniformly strong field plants of high rubber content.

NOTE.—There were no expenditures for development of the extraction process because this was brought to the experiment station after development in Mexico.

These research and experimental expenditures are not related to the company's balance sheet or its capitalization. A large part of the money expended was from earnings and might have been distributed to stockholders instead of being spent for research and experimentation. The Government could properly have conducted this development as it has conducted development work for sugar and other agricultural products. It is believed that any taxpayer or Member of the Congress with knowledge of the facts would agree that if the Government

now finds it desirable to acquire the project it should, in simple equity, pay what the project cost.

From time to time over the years substantial sums originally capitalized have been written off in connection with corporate reorganizations. These are in addition to the \$773,099 representing depreciation and sums charged directly to expense and deducted from the total expenditures shown on the above table. Of course, the proceeds from all rubber produced at the experiment station are deducted before arriving at the stated total expenditure of \$3,417,792.

At the January 8 hearing it was proposed that H. R. 6299 be amended to provide that the Government pay to Intercontinental Rubber Co. its actual outlay on the project as determined by an audit of its books to be made by the Government within a reasonably brief period, limited, however, to a maximum price of \$2,600,000. The board of directors of Intercontinental Rubber Co. has authorized me to say that if the acquisition be made in the manner of this proposed amendment the company will make delivery of the property forthwith on the act becoming law.

Your attention is respectfully directed to the fact that nursery seed should be planted in March and much preparatory work is required including preparation of nursery land and irrigation facilities.

Copies of this letter are enclosed for all members of the Agricultural Committee.

Very truly yours,

C. L. BAKER, *President.*

FURTHER STATEMENT OF HON. JOHN Z. ANDERSON

Mr. ANDERSON. Mr. Chairman, so far as I am concerned, that completes the list of witnesses who have asked to testify.

There has been some question raised here as to how this emergency program should be handled. At the suggestion of two or three members of the committee, I wired some of the major rubber companies Saturday, inquiring their views on this program, and I have here one letter and one wire that I have received. If there is no objection, I would like to read them for the benefit of the committee, because they bear directly on the problem being discussed here.

This wire is signed by John L. Collyer, president of the B. F. Goodrich Rubber Co., Akron, Ohio.

(The telegram is as follows:)

AKRON, OHIO,
January 13, 1942.

HON. JOHN Z. ANDERSON,
Member of Congress,

New House Office Building, Washington, D. C.:

In answer your telegrams 10th, believe Government should undertake expansion program guayule rubber only to extent of 45,000 acres recently proposed. By time that program ready for further expansion synthetic-rubber industry will have demonstrated its ability to take care of national needs; but if not, then the guayule situation can be expanded to that end. Do not believe Government should guarantee any price for guayule rubber or should subsidize private industry for its production.

JOHN L. COLLYER,
President, B. F. Goodrich Rubber Co.

Mr. ANDERSON. A letter has just been delivered to me from P. W. Litchfield, president of the Goodyear Tire & Rubber Co., which reads as follows:

(The letter is as follows:)

THE GOODYEAR TIRE & RUBBER CO.,
Akron, Ohio, January 12, 1942.

HON. JOHN Z. ANDERSON,

House of Representatives, Washington, D. C.

DEAR MR. ANDERSON: Replying to your telegram of January 10, I believe that when the world is at peace and there is a free flow of raw materials the production of guayule rubber cannot be made profitably competitive with

plantation Hevea rubber grown in the tropical latitudes of either the Eastern or Western Hemispheres.

It could only be competitive under those conditions when there is a potential scarcity of Hevea rubber, or when the selling price of Hevea is artificially raised by governmental decree. Therefore, I think it unwise to subsidize and build up a vested private interest which has to be supported by noneconomic means.

However, we are now at war rather than at peace, and this condition may last for a considerable period. The production of Hevea rubber under friendly control and the transportation of the rubber to our shores is now seriously interfered with. Therefore, it is necessary to develop a substitute which can be grown agriculturally in the Western Hemisphere and synthetic substitutes which can be made at home.

This is a case where the Government must take out adequate insurance to protect the national needs for crude rubber, in addition to conserving the supplies already existing here.

Guayule has been grown in Mexico and a number of places in southwestern United States, particularly around Salinas, Calif. It is a possible source of supply in substantial quantities, beginning 4 years from now. As a high yielding rubber plant, it is rather particular as to location and cultivation and cannot be rushed into a haphazard way without enormous waste.

In my opinion, under these circumstances, the first move should be for the Government and the Department of Agriculture to take over the nucleus of the work which has been started and carried on at Salinas. Good seed is now available, I am told, sufficient to plant about 45,000 acres. This should be planted in different localities found most suitable by the experts of the Department of Agriculture as a means of producing additional planting on a large scale a year from now, as conditions at that time would seem to justify. A reappraisal of the situation should then be made, with consideration given to the quantity, quality, and cost of Hevea rubber, synthetic rubber, and guayule rubber, and other types of rubber and substitutes.

I believe that at least during these initial stages that it should be entirely a Government operation, and until some future period when its commercial future possibilities are more clearly apparent we should confine it to Government operation.

Very truly yours,

THE GOODYEAR TIRE & RUBBER CO.,
P. W. LITCHFIELD,
Chairman of the Board.

Mr. ANDERSON. Now, Mr. Chairman, that closes my testimony, and I want to reemphasize again the point brought out by Mr. Coffee—this is an emergency. The thing now is to get that seed in the ground and have a potential source of rubber that might be available at a later date, if we find it necessary to have it, but by no means should we pass up this opportunity to get that seed in the ground.

Mr. HOPE. You think the work should be done by the Government?

Mr. ANDERSON. I am in favor of this initial planting being done by the Government, as outlined in my bill. If the program is extended at a later date, naturally additional legislation will be necessary, but in the meantime we have an entire year to develop the type of program we want to follow if we should want to keep this up.

Mr. WICKERSHAM. Isn't it true, if the Government had these plants the Government would want to keep them up and get the seeds, while the farmer might not look at it from the long view and would want to get rid of it?

Mr. ANDERSON. So much depends on the economic situation and the price of rubber.

Mr. WICKERSHAM. If the price went up the farmer might want to sell it as shrubs, while the Government would more likely look to the future.

Mr. ANDERSON. I heartily favor the Government doing this work in its initial stages. Of course, there are members of the committee who

think this should be not just a program for the emergency. I think we can work out a continued program for suitable production of guayule in our country if we approach it in the proper way.

MR. COFFEE. Is the Intercontinental Rubber Co. making any plans to plant this seed at the present time?

MR. ANDERSON. I know of no plans. I am not familiar with what the Intercontinental Rubber Co. is planning to do at all.

MR. PACE. Mr. Chairman, Mr. Harter is here; he is very deeply interested in this subject, and I assume you will want to hear from him.

THE CHAIRMAN. If Mr. Harter wishes to be heard, we will be glad to hear him.

STATEMENT OF HON. DOW W. HARTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

MR. HARTER. Mr. Chairman and gentlemen of the committee; I do not care to testify as having any specialized knowledge about the point at issue here, but as Mr. Pace has said, I am tremendously interested in behalf of the people of the district in Ohio that I represent, because there is more rubber manufacturing going on in and around Ohio, which is in the Fourteenth Congressional District of Ohio that I represent, than is concentrated anywhere else in the United States, and of course the situation with reference to supplies of rubber is most critical and anything that can be done to bring about an increase in the supply of crude, synthetic, or substitute rubber at this particular time when we are in an all-out emergency those of us in Akron firmly believe should be done.

I would like to present to you and have heard for a few minutes, Mr. Babcock, who is the chief chemist of the Firestone Tire & Rubber Co., who has spent his life in studies of rubber chemistry and of the use of rubbers of all types, and who has been in most parts of the world where rubber is raised. I think perhaps he can give you some information that will be of interest upon this subject, and I think he is fully informed as to the supplies of rubber and the needs of the country, including the military program at the present time. If you care to hear him for a few minutes, he is available.

THE CHAIRMAN. The other day Mr. Appleby, representing the Department, stated that they would be glad to go into this proposition during this emergency, which would indicate after the emergency it would all be over with. Would you advocate at this time the Government buying out this rubber company, lock, stock, and barrel, putting the Government into the proposition just during the emergency? Or would it be better to undertake this by insuring a proper price to the people who have this experience and the land and the machinery, and let them continue to operate that property?

MR. HARTER. Mr. Chairman, that is a rather difficult question to answer. Personally I would prefer to see it handled in the latter way, but if it cannot be handled through private ownership, if we are to have additional rubber and we need it as badly as I think we do, rather than be deprived of it. I believe the Government should go into it. But if it can be handled in the other way, I believe that would be preferable.

THE CHAIRMAN. We will be glad to hear your witness.

Mr. FLANNAGAN. Before we hear the other witness, I would like to put in the record the letter received by you from the president of the Intercontinental Rubber Co., Mr. Chairman, in which they give a break-down of the Arizona and California plants. I would like to have Mr. Atwater come around for a few minutes to see if I understand this.

Mr. Atwater, from the letter dated January 10, from Mr. Baker, to the chairman, which has been inserted in the record, I note that Mr. Baker gives a break-down of the Arizona and California developments. This break-down shows that you have invested in the Arizona plant, after charging off taxes, depreciation, and expenses, and also crediting proceeds from rubber sold, \$633,583, and in the California project, \$2,011,310. That is correct, is it?

Mr. ATWATER. Yes.

Mr. FLANNAGAN. At what figure are you carrying the Arizona development on your books?

Mr. ATWATER. The figures stated in the letter dated January 10, from Mr. Baker, have no reference to present book values, as stated in the letter. The sums at which the properties are discussed in that letter are the expenditures for those properties. I have before me figures which are approximately comparable. This was taken from our books at September 30 of last year, whereas the figures in the letter are 9 months earlier, but that will not make any material difference.

The California property at September 30, 1941, was on our books at a gross value of \$1,075,839; they were depreciated on the books, \$351,444, and had a net value of \$724,395.

Mr. FLANNAGAN. That is what you were carrying the California plant at on your books?

Mr. ATWATER. Pardon?

Mr. FLANNAGAN. You were carrying your California plant on your books at \$724,395?

Mr. ATWATER. Yes; depreciated on the books.

Mr. FLANNAGAN. And what were you carrying Arizona at?

Mr. ATWATER. The same figures for Arizona are \$368,799 before depreciation; \$41,395 depreciation, and \$327,404 after depreciation.

I should state in this connection that these book figures are not the original figures which represented expenditures for these properties, but are figures remaining after substantial write-downs at periods of corporate reorganization.

Mr. FLANNAGAN. But the figures that you carry the properties in the United States at are some million and a half dollars under that which you are asking the Government for your holdings in the United States.

Mr. ATWATER. That is correct. That is stated in the first paragraph beginning on page 2, where it is stated that these research and experimental expenditures are not related to the company's balance sheet or capitalization. A large part of the money expended was from earnings, and might have been distributed to stockholders instead of being spent on research and experimentation.

Mr. FLANNAGAN. But as I understand it, if you receive from the Government around a million dollars for your holdings in the United States it would cover the amount you are carrying those holdings on your books at.

Mr. ATWATER. Yes; the sum we seek to recover is in excess of the present book value depreciated.

Mr. COFFEE. You have only received \$290,000 from the sale of rubber during your entire history of operations in the United States?

Mr. ATWATER. That is correct.

Mr. FLANNAGAN. Just one other question. For what amount would you be willing to sell the assets of the company in the United States? Would you be willing to sell the assets of the company in the United States at the amount they are being carried on the company's books?

Mr. ATWATER. Of course, I am not authorized to quote any price except that which the directors have approved. I will say for the record that our company feels very definitely that if we have carried along the expensive development that produced something new of value, and the Government wishes to acquire that development it should, in fairness, pay us what we spent for it. It might just as well have been done by the Department of Agriculture, which has carried on many similar developments, beet sugar, for example, which was mentioned a little while ago. That was done for the benefit of the country as a whole, and the Government properly paid for it. We are in a similar position, except we have paid the expenditures which have brought about the present situation. If that is deemed of value in this emergency and the Government wishes to acquire it, we think we should have our money back. We are not asking for interest on the money or any profit. How those values are shown on our books today, or what sums we may have written off through corporate reorganizations in the past, have nothing to do with the amount of money that was expended for the development.

Mr. FLANNAGAN. But the directors are evidently of the opinion that the book value—that is, the amount you have set up on your books—reflect the true value of your holdings in the United States. Otherwise, they would not set up those values.

Mr. ATWATER. No; I do not think that is a correct statement. I do not think there is any way to appraise the value of this kind of a development other than to say it is worth what it cost. You may assume that the Government could have done it for less, or that the Government would have paid more to have accomplished the same result. I don't know. But we did pay this. The proposal is that the actual cost shall be ascertained by Government accountants. We are not asking that our figures on these costs be accepted as the basis of price. Our books are available and we assume they will be audited.

Mr. FLANNAGAN. And if the Government accountants examine the books, would it be satisfactory for the Government to pay the value of those properties as at present carried on the books of the company?

Mr. ATWATER. I cannot answer that.

Mr. COFFEE. Just one further question. How do you account for the fact that you have only received in revenue \$290,000 on a 2½-million-dollar investment over a period of 20 years?

Mr. ATWATER. That question is directed to a misunderstanding that seems to have pervaded the entire hearing. This is not a commercial operation. The plant at the experiment station at Salinas was operated intermittently for about 3 months early in 1941. It had not operated before that at all for a period of years, and has in

total been operated only three or four times, and each time for a short period. It is not a commercial operation.

Mr. COFFEE. In other words, you have never conducted any commercial operations in the United States except during these 3 years?

Mr. ATWATER. That is correct; and we do not look upon that as a commercial operation. It has been operated as an experiment, and at a heavy loss in each instance.

Mr. FLANNAGAN. As I understand it, you abandoned the Arizona property some 8 years ago and since then have been leasing the land to cotton growers.

Mr. ATWATER. That is correct; and some of it is leased for grazing and various purposes not connected with guayule.

Mr. FLANNAGAN. And I understand the Arizona land cost you \$117,988.12.

Mr. ATWATER. Yes; the original cost of the Arizona land was \$117,988.12. That was before irrigation or any buildings or what not were constructed, sir.

Mr. WICKERSHAM. I would like to ask one question with reference to the book value. Each share is \$5. However, they are selling at \$9 now.

Mr. ATWATER. That is correct. The shares are of no par value. The stated value is \$5 per share. We have about 600,000 shares outstanding, and have a capital surplus of approximately \$1,000,000, which would give a total capital and surplus value of \$4,000,000.

The CHAIRMAN. Mr. Harter, we will be very glad to hear your witness.

STATEMENT OF E. B. BABCOCK, CHIEF CHEMIST, FIRESTONE TIRE & RUBBER CO., AKRON, OHIO

Mr. BABCOCK. I only wish to make a short, simple statement. We are users of guayule.

The CHAIRMAN. Will you state the company you represent?

Mr. BABCOCK. I represent the Firestone Tire & Rubber Co. We are users of the present commercial type of guayule imported from Mexico. Our consumption is very small. I should say not over 25 tons a month, whereas we use up to 10,000 tons a month of natural rubber.

The Commercial guayule today, of course, is limited in its use because of its high resin content, which makes it rather soft, and I want to point out that in any large use of guayule, of course, it should be taken into consideration the necessity for deresination, and when that deresination is properly carried out, as has been experimentally, we can use very substantial quantities of guayule, and in this very serious emergency in reference to rubber, it would be a very fine thing to have.

Mr. COFFEE. Is deresination an expensive process?

Mr. BABCOCK. I am not in a position to answer that. All I know is the companies producing it indicate it probably would not cost more than a cent a pound.

The CHAIRMAN. Isn't it true after the emergency that this proposition would not mean anything to your company?

Mr. BABCOCK. I believe not. The only answer to that is if those producing deresinated guayule after the emergency could sell it to us

at a price that is comparable to the lower cost of Hevea rubber; it would be used.

The CHAIRMAN. In normal times that would be impossible, would it not?

Mr. BABCOCK. That is my belief.

The CHAIRMAN. Would you mind giving the committee some information as to just what your company is doing in the way of experimental work in some other countries in connection with rubber production?

Mr. BABCOCK. Well, we, of course, have a Hevea plantation in Liberia, in West Africa, where we have about 75,000 acres planted, and we will produce approximately 22,000,000 pounds of rubber in 1942. We have investigated the possibility of growing rubber in the American Tropics, in the Western Hemisphere, and have cooperated with the Bureau of Plant Industry, Department of Agriculture, furnishing them specially developed planting material, in the form of seed, butt stumps, butt wood, to be planted in the various experimental gardens in the American Tropics—Haiti, Panama, Costa Rica, and so forth, and we have started an experimental nursery and plantation in Honduras, not with the idea that we can see immediate possibility of competing with other rubber, either Liberia or the Far East, in reference to the cost of rubber under ordinary free-trade conditions, but we believe it is a good insurance to have planting material and the ability to go on with planting Hevea rubber in the Western Hemisphere, in view of the fact we do not know what the situation will be from now on. If the price of rubber is held at the present levels or larger, rubber can be grown in the Western Hemisphere.

There is one thing that must be overcome from the scientific standpoint, and that is the South American leaf blight, and good progress I can say has been made along those lines, although we cannot expect much rubber from cultivated Hevea in the Western Hemisphere for the next 5 years.

The CHAIRMAN. Do you know whether or not any of the other large rubber manufacturers are doing the same line of work your company is doing?

Mr. BABCOCK. The Goodyear Co. has been doing work for 5 years in Costa Rica and Panama, the Republic of Panama.

The CHAIRMAN. The Government now is doing that same kind of work in what area?

Mr. BABCOCK. The Department of Agriculture has an experiment station in Costa Rica and Panama, Honduras, Guatemala, Nicaragua, Colombia, and Brazil, Equador, and I believe in northern Peru, and, of course, there is quite a project in Haiti, and maybe a little in Puerto Rico. There is quite a project in Haiti, which, I believe, is financed by the Export-Import Bank with the Haitian Government. They have organized a corporation down there and considerable of our planting material has been sent there, seeds and so forth.

The CHAIRMAN. And is it your understanding, as stated by Mr. Appleby, that this is more or less an emergency proposition, to try to secure rubber because of the serious situation in rubber production at this time?

Mr. BABCOCK. Do you speak of the Western Hemisphere growing, or here?

The CHAIRMAN. No; I am speaking of this project, guayule.

Mr. BARCOCK. Yes, sir; in my opinion it is nothing but an emergency proposition.

The CHAIRMAN. In other words, it would not have the possibility of further development in normal times, with the lower price of rubber from all these other countries?

Mr. BARCOCK. I can give only my opinion on that, because I am not an expert at all on the growing of guayule. Scientific developments along agricultural lines and chemical lines produce a lot of things that surprise us. Properly started, there may be a great development in this, but agricultural labor at the price it is in the United States, would indicate to me it would be rather difficult to compete.

The CHAIRMAN. In other words, if it is possible to produce it in any quantity, the only way we could do it would be by a protection or a tariff.

Mr. BARCOCK. Yes, sir; I believe that is correct.

Mr. PACE. Aren't you taking rather, I might say, a one-sided view? Aren't you assuming that the present emergency will terminate as you and I want it to terminate? Of course, you are assuming the emergency will terminate with ourselves and our friends in complete control of the seas and in complete control of the present large rubber supply. I am personally confident it will terminate that way, but don't you think it would be smart to go at this thing while the world is on fire, in a little more definite way, and that we might want to make a permanent production of guayule? Certainly it is not contemplated the minute the emergency is over Jesse Jones is going to destroy a \$400,000,000 investment in synthetic rubber. I don't think anybody has that in mind. Don't you think it might be smart for us to look at this thing from a little broader aspect rather than for just 3 or 4 years? It may be that we will find Dr. Spence's proposal practical and we may get into the production of our own rubber supplies within the continent.

Mr. BARCOCK. Yes, sir. I want to make myself clear. The reason why I favor going forward with getting these seeds and the necessary nurseries planted at this time, by whatever means you determine is best, so that the reservoir will be there, is because of my belief there is a possibility for scientific development that may change the situation. That is my personal opinion, and I think the opinion of my company. We would like to see this thing put in a position so that if a year from now, or 2 years from now, or even longer, we have a start, so that we can go along on volume production, we will do so. I am personally of the opinion that the price of rubber will be held high for a number of years.

The CHAIRMAN. Mr. Pace, we agree we are in an emergency and something should be done. Do you have the thought that after the emergency is over Jesse Jones is going to continue to spend \$400,000,000 for synthetic rubber?

Mr. PACE. He will have spent it, Mr. Chairman.

The CHAIRMAN. I am talking about continuing it.

Mr. PACE. I think there is a possibility that before this war is over the entire rubber supply in the Far East will have been destroyed. Certainly, the British are now destroying the supply as they come down the Malayan Peninsula, and when the Japs go up they will com-

pletely destroy it, and I hope they will be pushed up. They will probably destroy the entire forest, or whatever it is, of rubber trees, so there is no telling when you will ever be able to go back and get 97 percent of your rubber from the East Indies. It seems to me when we get into this proposition there is one quick thing we want to do, get this seed into the ground by March 1; and when we do it, we should be building a permanent structure, if needed, and not go in there in a haphazard way and throw away what we have done and then regret it. Certainly this Nation is big enough, with this enormous synthetic supply that is now coming, to acquire some rubber production itself. We do not know how long the rubber supply will be available.

Mr. BABCOCK. Correct.

Mr. PACE. We do not know how many ships there will be to carry it, and, personally, Mr. Chairman, it hurts me to sit here and say we are doing something for 3 years when we might be doing it for 300 years.

The CHAIRMAN. I would like to add to that that there is a great possibility now, and there has been a great possibility in the past, but we have not done anything about it because of the good-neighbor policy, and because the very people who are deeply interested now would not come here even now if it were not for the emergency, and after the emergency they are going back to importing rubber. I am perfectly willing to develop this to the fullest extent, but it means putting that much money in a rat hole because after the emergency these rubber manufacturers are going to operate under the good-neighbor policy, and especially when you can buy much cheaper from other countries. I think something ought to be done now, and I think we have had a great possibility in the past, but we never will accomplish anything along these lines unless we are willing to protect with a proper tariff, just like we are protecting other industries and have protected them in the past. I realize fully, in line with the statement made by Mr. Appleby and others, that as soon as this emergency is over we are going back to those countries where we can buy it cheaper.

Mr. PACE. If we can go back, and if the supply is there.

Mr. HOPE. I would like to ask Mr. Babcock about synthetic rubber. Is your company doing some work on synthetic rubber?

Mr. BABCOCK. Yes, sir; we are producing synthetic rubber, and we are building one of the four defense plants at the present time, and undoubtedly will build more of them.

Mr. HOPE. What do you think are the possibilities of synthetic rubber, so far as meeting this present emergency is concerned?

Mr. BABCOCK. I consider synthetic rubber to be the best method of meeting it quickly.

Mr. HOPE. So far as a comparison of cost is concerned between synthetic and guayule, what are your figures on that?

Mr. BABCOCK. I am familiar with the costs on synthetic rubber; I cannot say what the costs would be of growing guayule.

Mr. HOPE. It has been stated here about 20 cents a pound. Let us assume that is the cost of guayule.

Mr. BABCOCK. Well, we will produce synthetic rubber, depending, of course, now on this much larger program—we do not know just where it will go, but it will probably be from 25 cents down.

Mr. HOPE. From 25 cents down?

Mr. BABCOCK. Yes, sir. That is depending—nobody can tell you exactly what the cost of synthetic rubber is going to be, for the reason that these very large plants now undoubtedly will produce the raw materials, which are the principal costs of synthetic rubber, at continually lowering costs.

Mr. HOPE. What have been your costs up to date on the synthetic rubber you have produced on a small scale?

Mr. BABCOCK. I am not at liberty to disclose that. I can tell you that they have been approaching the 30-cent mark.

Mr. HOPE. Do you think the program announced in the press this morning is a practical way to approach this matter of meeting the rubber situation?

Mr. BABCOCK. Yes, sir; I will say, further, I know of no other way. The rubber situation is very serious. No matter what you start to do on Western Hemisphere, Hevea or guayule, it is not going to be available to us in any quantity for 4 or 5 years, and we must have rubber in large quantities long before that.

Mr. HOPE. Those figures of 25 cents down which you have mentioned include a return on invested capital and all other expenditures, do they, which you ordinarily would provide for in cost accounting?

Mr. BABCOCK. It includes amortization of the plant over a period of 5 years. How the R. F. C. is going to get a return on invested capital, I do not know. I suppose that would have something to do with how they charge the rubber out.

Mr. HOPE. But you probably could not produce at that price and pay a return on invested capital.

Mr. BABCOCK. In my opinion synthetic rubber plants erected by private capital will eventually get the price of rubber down under 30 cents, definitely.

Mr. HOPE. The statement was made this morning by another witness that no matter how much synthetic rubber we had it is necessary to have some natural rubber to blend with it.

Mr. BABCOCK. That is true. With our present knowledge, that is true. We need some natural rubber, either of the plantation type from the Far East or wild rubber from the American Tropics or West Africa, or guayule, to blend with our synthetic rubber, in order to facilitate the manufacture of our products. There is good reason to believe that another year or two of research will minimize that need, but today we have the need, and that is one reason why it is necessary, just as quickly as possible, to get these synthetic rubber plants into production so that we can spread out farther the amount of natural rubber that is available to us at this time, and in sight for the next 2 years or longer.

Mr. HOPE. In other words, if we could produce all of our rubber requirements synthetically, we would still need the guayule?

Mr. BABCOCK. Today that is the situation. We would need a natural rubber of some kind, a natural rubber hydrocarbon of some kind. Deresinated guayule would do the job as well as the Hevea types.

Mr. HOPE. We have in this country ample material with which to produce synthetic rubber?

Mr. BABCOCK. All investigations show that.

Mr. FLANNAGAN. What do you make synthetic rubber out of?

Mr. BABCOCK. The principal basic raw materials for our synthetic rubber are petroleum products.

Mr. PACE. Any gas?

Mr. BABCOCK. It can be made from natural gas.

Mr. FLANNAGAN. Do you make any of it from the byproducts of coal?

Mr. BABCOCK. Yes; the neophrene type of rubber made by one company starts in with the manufacture of acetylene gas, which can be traced back to coal and limestone.

Mr. POAGE. Do you know anything about the process announced by the University of Texas of making rubber from acetylene gas or natural gas?

Mr. BABCOCK. I know nothing about that except what I read in the papers.

The CHAIRMAN. You state within the next 2 or 3 years, with research, we will be in a splendid position in the production of synthetic rubber and other types of rubber. What I would like to know is why, during all these years, when we had plenty of time, we have not been able to do the things you state we will be able to do in 2 or 3 years.

Mr. BABCOCK. Of course, we would not be able to do at all the things we have done in the last 2 or 3 years, if our companies had not been doing research work for the last 10 or 15 years on that very subject, which we have done in very great volume and at great cost. The synthetic rubber development in this country, of course, has been delayed by the fact that Hevea rubber had been available at very low prices. I think you would have to charge it up perhaps to complacency or lack of foresight that there was not some means found of putting it into large-scale commercial production in the interest of national defense.

The CHAIRMAN. I would rather think the reason for it was because of being able to buy cheap rubber from other countries rather than being willing to pay a little more for something we could produce here. We can produce Nylon and other things, and yet they would rather sell silk. Japan sold us silk and bought our scrap iron. As I stated a while ago, we have wonderful possibilities in this country, but with our high wages and every other type of expense, our standard of living, naturally prices are going to be higher than any other country, and the only way to do it would be by protection; but, because of the wonderful advantage of those who have been dealing in this stuff, they have been able to keep down this protection, and there has been nothing done about it. Now we come to an emergency, and I agree something ought to be done, but I do not believe the Government ought to go into a proposition of spending quite a lot of money to relieve somebody who has been losing money out of this thing, and then state at the same time we are only going into it for 2 or 3 years and then let it go.

Mr. COFFEE. I would like to ask you this: In order to utilize this synthetic rubber, what proportion of natural rubber will be necessary?

Mr. BABCOCK. The over-all picture of that today is that in a tire nowadays, we need something like 40 percent of our total requirements in synthetic rubber. However, certain parts of the tires, like the tread and the side walls, we can make 100 percent synthetic rubber, the ply compounds about 50 percent synthetic and 50 percent natural. That has been going down regularly and we are hoping to

see it go down very much more, and I have no doubt we will be able to make tires with 100 percent synthetic rubber in the not distant future.

Mr. PACE. Has industry given any thought to changing the construction of tires, whereby the present amount of rubber will not be required in their construction—probably reducing the size of the tire?

Mr. BABCOCK. Of course, we have very intensive programs under way with the Ordnance Department, and the Quartermaster on just those things. There are meetings here almost every day trying to do everything possible to cut down the amount of rubber, both by building tires whose dimensions in all respects are no greater than absolutely necessary to do the job, and such things as the use of rayon cord, which makes it possible to use a thinner tire and therefore less rubber, and a great many other things with reference to the use of all the reclaimed rubber possible. The study is very intensive at this time and has been for quite some time.

The CHAIRMAN. Wouldn't it be possible to use more cotton?

Mr. BABCOCK. Of course, using more cotton requires using more rubber.

Mr. WICKERSHAM. What percentage of a tire is cotton?

Mr. BABCOCK. I wouldn't care to answer that question, because I am not just sure of the average. It would vary with every size of tire. It varies up and down with every size of tire. The ply content, the body of the tire itself, in general, has about 50 percent cotton.

Mr. WICKERSHAM. Our native cotton or long staple cotton?

Mr. BABCOCK. All native cotton.

Mr. WICKERSHAM. Is there any likelihood of your running short of carbon black? Or is it true that you have an ample supply or unlimited supply of carbon black?

Mr. BABCOCK. Of all the material we have been having difficulty with, there has never been any indication of shortage of carbon black. Carbon black seems to be available in unlimited quantities.

Mr. WICKERSHAM. How much rubber is being imported at this time?

Mr. BABCOCK. At this time?

Mr. WICKERSHAM. Yes.

Mr. BABCOCK. I take it you mean how much rubber, since this thing started, has come into the United States.

Mr. WICKERSHAM. Yes.

Mr. BABCOCK. The figures are available as to how much arrived during December, but I should like to refer you to the Rubber Reserve for those figures. They are all confidential.

The CHAIRMAN. Referring to my statement a while ago, I do want to make this short statement to indicate what I am talking about. During the past years we have been importing 50 percent of the pulpwood, pulp, and newsprint use in this country, duty free. We have got millions and millions of tons of pulpwood in this country which ought to be preserved and utilized and at a fair price to those who own the forests of the country. But in the meantime I see now that the pulp and paper mills of the country are wondering just how they are going to proceed with what they can import and secure in this country because of the increased demand. I have had the Bureau of Standards pulp a bale of cotton for the purpose of mixing with wood pulp,

which works perfectly, and by so doing we could use over 400,000,000 bales of additional cotton annually. The technical men of the pulp and paper people in confidence said that it will work 100 percent, but that it will make their product cost just a little bit more and they bitterly oppose it, and the Department refuses to do anything about it. I would not be at all surprised if the time will come when we will be called upon to do something along this line but they want to wait for an emergency.

What I wanted to bring out is these people who are engaged in the pulp and paper industry, and the Department not doing anything about it, we are neglecting to do those things that would mean everything to our people in this country. I think we should go into these things, and even if we do have to put a tariff on some things, we would be in a position where we could consume more of our own products and produce more of our own products and put more of our own people to work. Prior to this war we imported into this country tons and tons of cheap oils and fats. Now that we cannot import oils and fats cottonseed oil is away up, and cottonseed is selling for \$60 per ton; soybean oil is up, and we are asking the farmers to produce more. Those are the things I am interested in, and that is what I wanted to bring out.

Mr. CLEVENGER. Mr. Babcock, I have listened to your testimony with interest. I would like to ask you if you feel the day will ever come when synthetic rubber will render the production of natural rubber superfluous, or that synthetic rubber will become so generally used that there will be no real need for the natural rubber. I know you said perhaps within 2 years there may be a possibility of developing synthetic rubber in such manner that you would not need the natural rubber. What is your opinion on that?

Mr. BABCOCK. I should like to say first that the development of synthetic rubber in this country went forward despite the economic aspects of it, because of the fact that the particular types of synthetic rubber produced had properties natural rubber did not have. Some of those properties are resistance to oil and hydrocarbon solvents, resistance to heat. Certain types of synthetic rubber, for instance, can be used in gasoline hose. They are absolutely indispensable at the present time in bullet-sealing fuel tanks for airplanes and things of that nature. There is and has been a field for these special types of rubber costing three or four times natural rubber. Natural rubber has some weaknesses; we are limited in some of the things we can do on truck and bus tires and things of that nature with natural rubber. Our research departments are all working on the development of synthetic rubber that will be better in quality for many specific types of use than natural rubber. That field is growing all the time. I would say it will be quite a while before we will get to the point where we will not need any natural rubber. It is rather difficult for me to take all of the economics out of the situation. If natural rubber is available at a very low price, say 5, 6, 7, or even 10 or 12 cents a pound, and synthetic rubber cost 25 cents, the natural rubber will find a wide use always, because there are some places where it does the job entirely satisfactorily.

Mr. CLEVENGER. In other words, you feel there will always be a need no matter how far developed the synthetic rubber may become for the natural rubber?

Mr. BABCOCK. I feel commercially there will be for many years to come.

Mr. PACE. Can you not meet most of your military requirements outside of tires, with synthetic rubber. That is, in the construction of airplanes and tanks—practically all of that can be done with synthetic rubber, can it not?

Mr. BABCOCK. Yes. We will need some. You spoke of tanks. One large requirement for rubber at the present time is for the treads for tanks. We could make them out of all synthetic rubber. We should like a little natural rubber to blend with it to facilitate our processing. You must remember we have large factories equipped for manufacturing products from natural rubber. It is possible over a period of time to convert those factories so we can make synthetic rubber products without any natural rubber in them, but in the meantime it facilitates our processing and handling and fabrication of our products to have this natural rubber mixed with it.

Mr. PACE. I understood Mr. Jones's statement to be that, if necessary, all the strictly military requirements could be met with synthetic rubber.

Mr. BABCOCK. I consider that statement entirely correct. We are in a very serious situation. If we had all the synthetic rubber we needed, it would be a very fine thing. Even if we didn't have natural rubber, in an emergency we could make some tires which would not wear as well, or tires that developed more heat. We would have to limit the job which we put those tires up against—perhaps instead of running 75 or 80 miles an hour we would have to cut down to a maximum of 50 miles an hour, but we would keep vehicles on the road and keep them running. The situation is such at this time that the country dare do nothing less than provide itself in every way possible with any type of rubber we can use, including reclaimed.

Mr. PACE. Can you make a tire with a certain percentage of synthetic, a certain percentage of new natural rubber, and a certain percentage of reclaimed rubber?

Mr. BABCOCK. Yes, sir, we do make tires that way at this time.

Mr. PACE. In that way you could spread the use of your natural rubber rather broadly.

Mr. BABCOCK. Yes, sir.

Mr. PACE. And you could get a pretty good product?

Mr. BABCOCK. Yes, sir.

The CHAIRMAN. We thank you, Mr. Babcock, and if you gentlemen will let us have this room, we will go into executive session.

(Whereupon at 11:50 a. m. the committee went into executive session.)

FEDERAL LOAN AGENCY,
Washington, January 14, 1942.

Mr. H. P. FULMER,

Committee on Agriculture, House of Representatives,
Washington, D. C.

DEAR MR. FULMER: At a recent meeting with the Under Secretary of Agriculture and Dr. Brandes, of the Department of Agriculture, the advisability of developing the guayule rubber industry was considered.

It is my information that H. R. 5030 makes provision, among other things, for the planting of guayule acreage by the Department of Agriculture.

In view of recent developments in the Far East, I feel that Western Hemisphere sources of crude rubber should be encouraged, and that the planting of additional acreage of guayule, beyond that already in cultivation, should be undertaken.

Sincerely yours,

JESSE H. JONES,
Administrator.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D. C., January 16, 1942.

Hon. JESSE H. JONES,
Federal Loan Administrator, Washington, D. C.

MY DEAR MR. JONES: I am in receipt of your letter and note what you have to say about H. R. 5030, introduced by Mr. Anderson of California, proposing to take over the properties of the Intercontinental Rubber Co., including a certain amount of guayule seed, by the Government of the United States, for the purpose of engaging in planting, producing, and manufacturing guayule rubber.

It appears that for many years, although we have spent millions, we have done very little in research—not only in connection with this important matter but along various other lines that should prove to be very helpful to this country. The reason for this in a great many instances, as far as I am concerned, is because of the attitude of those large, more or less monopolistic groups who are able to get that which they need at a much cheaper price from other countries than they would be able to produce or secure it for in this country.

Suppose we had gone into the manufacture of synthetic rubber years ago. New machinery would not now have to be set up and we would be producing tons and tons of synthetic rubber on a very cheap basis. However, the Government is now called upon to spend millions during this emergency to secure this type of rubber. If there is a possibility of growing and producing rubber out of guayule, if we had gone into the production and manufacture of same by protecting those thus engaged, again we would be in position to take care of our needs.

Not only is our Government spending considerable money in the rubber business in other countries, but a number of the large manufacturers of rubber are spending considerable money in developing rubber areas in other countries. It was definitely brought out before our committee that this spending of the Government's money and the developing of the rubber industry in this country would be out of the window after the emergency is over, in that those large rubber manufacturers would expect to go back to their cheap rubber in other countries.

For 30 years the Intercontinental Rubber Co. has been trying to make a go of the guayule rubber business in this country. Tests have been made in Arizona, California, and Texas. They are only operating in California, and apparently for the sole reason of producing seed, in that the whole business has been a flop during all of these years.

This is a foreign-owned corporation. They have been making money in Mexico, where the guayule grows wild, and where they are able to use peon labor, but as stated, according to the facts submitted to the committee, they have been sinking money instead of making in this country. It is very apparent to our committee, in that this company refuses to continue its operations with a subsidized price for rubber that would enable them to operate successfully, if it can be done successfully, that it is a matter of unloading on our Government, which as stated, would leave the taxpayers of this country holding the bag. They are carrying on their books the assets of the company in connection with this project, an amount of \$1,075,000. We have offered, as stated, to subsidize them in prices or pass legislation authorizing the Government to pay to them \$1,100,000. They have refused in both instances.

I am enclosing copy of a letter just received from a man that has given quite a lot of study to the guayule plant, which tends to bear out my statement as to the possibilities of making a success out of the guayule-rubber-producing business in this country, and if so, certainly we would not be able to get an amount of rubber prior to from 4 to 6 years.

With all good wishes, I am

Yours very sincerely,

H. P. FULMER, *Chairman.*

BASKING RIDGE, N. J., *January 14, 1942.*

HOUSE AGRICULTURE COMMITTEE,
Washington, D. C.

DEAR SIR: I note you are taking time to debate planting additional 75,000 acres of guayule and making an authorization for expense of same. Don't waste your money or mine.

Guayule takes 6 years to grow and when cut takes 5 years for another crop to mature. The amount produced on 75,000 acres of this shrub would be a joke anyhow as it is not a prolific producer.

When the war was over you would have nothing whereas a synthetic rubber manufacturing plant might still be of use.

I have been a rubber importer for 30 years and know whereof I speak.

Yours truly,

COLLIER W. BAIRD.

AMERICAN FARM BUREAU FEDERATION,
Washington, D. C., January 15, 1942.

Congressman HAMPTON P. FULMER,
*Chairman, House Committee on Agriculture,
House Office Building, Washington, D. C.*

DEAR CHAIRMAN FULMER: In the consideration of the bill (H. R. 6262) providing for the development of guayule production as a domestic source of crude rubber, introduced by Congressman Anderson of California, we desire to urge upon you the interests of farmers in the question of rubber supplies from two stand-points. First, rubber on automobiles, trucks, tractors, and even on other types of farm equipment and machinery is playing a great part in agricultural progress. The shortage of supplies as a result of the war in the western Pacific area comes directly home to farmers who in every section of the country have been greatly influenced by the use of rubber. Second, guayule culture offers a prospect for the development of a new agricultural crop with income possibilities for farmers. Farmers should be recognized in the law as the prospective producers of this crop rather than the Government.

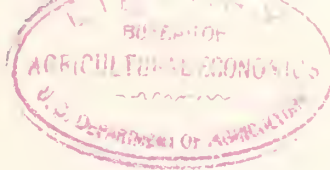
The studies thus far carried on seem to indicate a continuing need for research concerning this crop, and in this respect there is a real place for the Government to be of great assistance. The culture, however, including planting, tillage, and harvestng, should be worked out so as to be a part of farm enterprise, and, except for experimental and nursery stock, we do not believe it desirable that production of this plant become established in any real sense as a governmental operation. Therefore, we urge that in developing this legislation ample provision be made for subsidized production by farmers if necessary.

The objective of developing a source of rubber supply from our own hemisphere and if possible from our own United States is a highly commendable one. We urge, however, thorough safeguarding of the interests of farmers and the avoidance of governmental domination of this undertaking through complete governmental control of production and extraction of rubber from guayule.

Respectfully yours,

EDW. A. O'NEAL, *President.*

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Calendar No. 972

77TH CONGRESS }
2d Session }

SENATE

{ REPORT
{ No. 935

GUAYULE RUBBER

JANUARY 7 (legislative day, JANUARY 6), 1942.—Ordered to be printed

Mr. DOWNEY, from the Committee on Military Affairs, submitted the following

REPORT

[To accompany S. 2152]

The Committee on Military Affairs, to whom was referred the bill (S. 2152) to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses, having considered the same, report favorably thereon with an amendment in the nature of a substitute and recommend that the bill as amended be passed.

STATEMENT

This bill was originally reported without amendment on December 23, 1941, but after it was placed on the calendar certain recommendations were made by the Secretary of Agriculture and by the Comptroller General which it was felt should be considered before the bill was acted on. Consequently a request for reconsideration of the bill was agreed to on January 5, 1942.

These recommendations have been incorporated in the substitute bill which is now being reported. Briefly, the recommendations of the Secretary of Agriculture would extend his authority so that he might acquire by condemnation, if necessary, processes or patents with respect to the growing and harvesting of guayule or other rubber-bearing plants and rights to land for the purpose of making plantings, would authorize the planting of 75,000 acres of guayule in areas in the Western Hemisphere rather than 45,000 acres in the United States as originally proposed by the bill, and would enable the Secretary to appoint and fix the compensation of employees, including citizens of countries in the Western Hemisphere, for carrying out the provisions of the act, without regard to the civil-service laws and the Classification Act of 1923, as amended. Authority is also granted to the Secretary of Agriculture to plant not to exceed 15,000 acres of rubber-bearing plants other than guayule.

The recommendations of the Comptroller General relate to the accounting features of the bill and include a revision of section 2 (b) of the original bill and the elimination of sections 2 (c) and 2 (d). These recommendations have been incorporated in the substitute bill.

The general purposes of the bill are set out in report No. 924 submitted on December 23, 1941, and for the convenience of the Senate a copy of that report is herewith attached.

[S. Rept. No. 924, 77th Cong. 1st sess.]

The Committee on Military Affairs, to whom was referred the bill (S. 2152) to authorize the Secretary of Agriculture to proceed with the production of guayule rubber, having carefully considered the same, after sufficient hearings, submit the following report thereon with recommendation that it do pass.

It is now possible that for an indefinite period all rubber imports from Asia to the United States will be prevented by Japanese military forces. At present we have in the United States something less than 700,000 tons of rubber, which is about the amount required for 1 year of normal use. If this tonnage is used only for military purposes and other vital purposes it will last somewhere around 30 months.

The committee are therefore of the opinion that energetic means should be taken to develop in the United States every possible source of rubber supply. These include factories to produce synthetic rubber, improve methods of reclaiming and utilizing old stocks, encouraging shipments from Latin America, and last, and probably most important, the planting and processing of the wild rubber shrub, the guayule plant.

The committee does not believe it necessary to discuss at length the respective possibilities and costs of these different means of adding to our rubber supply. This, because the committee believes that every governmental agency charged with any responsibility to help solve our rubber problem should vigorously develop every potential rubber source. Even the widest and most energetic efforts may leave us with a critical lack of rubber if the enemy can control Asiatic oceans more than 2 or 3 years.

The committee has been assured by several competent rubber experts that the product of the guayule plant is very similar to the present crude rubber now being used and may readily be substituted for it. Its cost of production will be about 22 cents a pound, which is about one-half of the anticipated cost of synthetic rubber and about equal to the present value of the Asiatic crude rubber.

Guayule is now being developed in the Salinas Valley in California as well as in Mexico. Apparently there is an almost unlimited acreage in California, Arizona, New Mexico, Texas, and probably other Southern States, upon which it can successfully be grown.

It is the opinion of the committee that if the Department of Agriculture proceeds energetically to promote the guayule industry, that within less than 3 years we can expect a large and important addition to our rubber supply; and that within 5 years the wild rubber shrub could be made to produce most of the rubber needed for our civilian economy as well as our defense.

A financial statement showing the cost of the development of the industry is now being prepared and will be available for Congress within a few days. But the committee can now assure the Senate that for the first 2 years the necessary expenditures would be only a few million dollars—a sum totally insignificant compared with the cost of any other rubber development.

The committee attach to this report the copy of a letter written by the Department of Agriculture to Hon. H. P. Fulmer, chairman of the Committee on Agriculture, House of Representatives, on December 16, 1941, in support of a House bill, similar to the Senate bill now under consideration. In this bill the Secretary of Agriculture recommends the passage of the House bill and sets forth at length the facts upon which the recommendation is based.

Report from the Department of Agriculture of December 16 follows:

DEPARTMENT OF AGRICULTURE,
Washington, December 16, 1941.

Hon. H. P. FULMER,

Committee on Agriculture, House of Representatives.

DEAR MR. FULMER: This is in reply to your request of June 12, 1941, for a report on H. R. 5030, to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

The bill provides for establishing a corporation in the Department of Agriculture with necessary powers to plant or contract for planting 45,000 acres of the indigenous desert shrub, guayule, to grow the plants, and to provide for the extraction of the rubber. It provides for selling the rubber and using funds so obtained to maintain a planting of 45,000 acres of guayule.

In the opinion of the Department of Agriculture, the objects of H. R. 5030 are desirable in providing the essential means for a temporary source of natural rubber for emergency use by a method that avoids encouraging perpetuation of an uneconomic industry in the United States.

The Department of Agriculture has repeatedly pointed out that the wild plant, guayule, is a practicable and reasonably efficient but limited source of rubber; that it has been amply demonstrated by large-scale tests conducted by a commercial rubber company over a long period of years that improved guayule cultivated in the United States will produce rubber acceptable to rubber manufacturers and usable without alteration of manufacturing machinery; that the crop can be harvested and processed 4 or 5 years after field plantings are made at costs not unreasonably high, but substantially higher than the costs of producing rubber from the Para rubber tree in the American Tropics; that the shorter cycle of the cultivated guayule plant offers the possibility of obtaining rubber earlier than from planted Para rubber trees. Therefore, in the present emergency, which is certain to involve drastic curtailment and possibly complete cut-off of rubber supplies from the Orient, guayule is a demonstrated, practicable recourse for supplies of rubber.

Calculations made by the Department rubber experts indicate that the proposal in H. R. 5030 fits very well into a comprehensive plan for the progressive utilization of natural rubber from several available sources, including rubber from wild Hevea and Castilla rubber trees in the American Tropics and from cultivated guayule to revivify reclaimed rubber in the United States and provide for the strategic and other reasonable needs for rubber until low-cost plantation Hevea rubber is available in quantity from the American Tropics.

The problem of replacing our present sources of rubber supply will not easily be met by concentrating on a single source such as synthetic rubber. The cost would be enormous and the product is not demonstrated as satisfactory for exclusive use in meeting rubber needs. Moreover, it has been estimated that considerable time would be required to construct the physical facilities necessary for producing a volume of synthetic rubber equivalent to present consumption of crude rubber.

According to those who can speak authoritatively for the rubber industry, that would involve expensive change-over of rubber manufacturing machinery, and reallocation of machinery when cheap natural rubber again became available. It is known that Germany and Russia currently are making frantic efforts to secure natural rubber, which indicates that synthetic rubber cannot be used satisfactorily for all purposes.

We believe that a comprehensive, flexible plan providing for use of available sources of both crude and synthetic rubber is preferable. As a timely first step, some provisions in H. R. 5030 are admirably suited to such a plan.

H. R. 5030 does not contemplate the production of rubber in quantity sufficient to meet our needs but does provide for a nucleus planting, expandable in accordance with current forecasts of later needs. The expansion or curtailment would appear to be subject to control through governmental action based on the current forecasts and need not result in speculative planting or development of private vested interests. The activity could be discontinued when it became apparent that the reserve supply being created was no longer required to insure adequate supplies of rubber.

However, this Department believes the wisdom of employing the corporate device in the performance of the task here involved is questionable; that greater efficiency in costs and operations would result from legislation which would grant the necessary powers to the Secretary to permit him to carry out these added functions within the existing framework of the Department and to devote present

personnel and facilities to the objectives of the program to the greatest extent that this may be found feasible.

There is therefore attached a draft of a proposed substitute bill containing the revisions which we suggest. These changes are designed, as the foregoing points out in part, to afford greater administrative flexibility, to reduce the possibility of administrative complications, and to facilitate efficient utilization of existing agencies of this Department, which are already equipped to contribute toward the successful prosecution of the phase of the defense program herein contemplated. The importance of the latter consideration is emphasized by the fact that expert opinion and a comparison of current prices of natural crude rubber from the East with those of the guayule product lead to the conclusion that substantial losses may result when sources of supply in tropical regions are available. The assumption of this risk must be justified by the present war emergency.

We wish to point out that the nature of the crop season for guayule rubber makes prompt action necessary if nurseries are to be planted next March. Land must be acquired and prepared and overhead irrigation facilities and special planting equipment constructed. Failure to complete arrangements for the operation of the nurseries by next March or April may mean the loss of an entire season.

The Bureau of the Budget advises that there would be no objection to the presentation of this report for the consideration of the committee.

Sincerely yours,

PAUL H. APPLEBY, *Under Secretary.*

○

77TH CONGRESS
2^D SESSION

S. 2152

[Report No. 935]

IN THE SENATE OF THE UNITED STATES

DECEMBER 22, 1941

Mr. DOWNEY introduced the following bill; which was read twice and referred to the Committee on Military Affairs

DECEMBER 23, 1941

Reported by Mr. DOWNEY, without amendment

JANUARY 5, 1942

Recommitted to the Committee on Military Affairs

JANUARY 7 (legislative day, JANUARY 6), 1942

Reported by Mr. DOWNEY, with amendments

[Strike out all after the enacting clause and insert the part printed in italic]

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment the right to operate under patents, now held by the
7 Intercontinental Rubber Company or any of its subsidiaries,
8 relating to the ~~planting~~ of guayule or the extraction of rubber

1 therefrom; and to acquire such properties, processes, records,
2 and data as are necessary to such operation;

3 (2) To plant, or contract for the planting of, not in ex-
4 cess of forty-five thousand acres of guayule in areas in the
5 United States where the best growth and yields may be
6 expected in order to maintain a nucleus planting of guayule
7 to serve as a domestic source of crude rubber as well as of
8 planting material for use in further expanding guayule plant-
9 ing to meet emergency needs of the United States for crude
10 rubber; to establish and maintain nurseries to provide seed-
11 lings for field plants; and to purchase necessary equipment
12 and facilities;

13 (3) To acquire by purchase, lease, or other agreement
14 rights to land for the purpose of making plantings of guayule;
15 to make surveys, directly or through appropriate Govern-
16 ment agencies, of areas in the United States where guayule
17 might be grown; and to establish and maintain records indi-
18 cating areas to which guayule cultivation could be extended
19 for emergency production;

20 (4) To construct, operate, or contract for the operation
21 of, factories for the extraction of rubber from guayule; and to
22 purchase, operate, and maintain equipment for the harvest-
23 ing, storing, transporting, and complete processing of
24 guayule;

25 (5) To conduct studies, in which he may cooperate with

1 any other public or private agency, designed to increase the
2 yield of guayule by breeding or by selection, and to improve
3 planting methods; to make surveys of areas suitable for cul-
4 tivating guayule; to make experimental plantings; and to
5 conduct agronomic tests;

6 ~~(6)~~ To conduct tests, in which he may cooperate with
7 any other public or private agency, to determine the qualities
8 of rubber manufactured from guayule and to determine the
9 most favorable methods of compounding and using guayule
10 in rubber manufacturing processes;

11 ~~(7)~~ To improve methods of processing guayule and to
12 obtain and hold patents on such new processes; and

13 ~~(8)~~ To sell guayule or rubber processed from guayule
14 and to use funds so obtained in replanting and maintaining
15 an area of forty-five thousand acres of guayule inside the
16 United States.

17 SEC. 2 ~~(a)~~ The Secretary may appoint such employees
18 as may be necessary for carrying out the provisions of this
19 Act, subject to the civil-service laws, and the rates of com-
20 pensation of such employees shall be fixed in accordance with
21 the Classification Act of 1923, as amended.

22 ~~(b)~~ The Secretary shall determine the character and
23 necessity for the expenditures under this Act and the manner
24 in which they shall be incurred, allowed, and paid, without
25 regard to the provisions of any other laws governing the

1 expenditure of public funds, and such determinations shall
2 be final and conclusive upon all other officers of the Govern-
3 ment.

4 (c) The Secretary shall at all times maintain complete
5 and accurate books of account and shall submit, as soon as
6 practicable after January 1 of each year, an annual report to
7 Congress of his activities under this Act. The General Ac-
8 counting Office shall audit the financial transactions of the
9 Secretary under this Act once each year for the sole purpose
10 of making a report to Congress, together with such recom-
11 mendations as the Comptroller General of the United States
12 may deem advisable: *Provided, however,* That such report
13 shall not be made until the Secretary shall have had rea-
14 sonable opportunity to examine the report, to point out
15 errors therein, explain any criticism contained therein, and
16 to file a statement which shall be submitted by the Comp-
17 troller General with his report;

18 (d) All money made available to carry out this Act may
19 be deposited with the Treasurer of the United States, in any
20 Federal Reserve bank, or in any bank approved by the Sec-
21 retary of the Treasury and shall be subject to withdrawal at
22 any time;

23 (e) The Secretary may delegate any of the powers and
24 duties conferred on him by this Act to any agency or bureau
25 of the Department of Agriculture;

1 ~~(f)~~ The Secretary, with the consent of any board, com-
 2 mission, independent establishment, corporation, or executive
 3 department of the Government, including any field service
 4 thereof, may avail himself of the use of information, serv-
 5 ices, facilities, officers and employees thereof, in carrying
 6 out the provisions of this Act;

7 ~~(g)~~ The Secretary may allot to bureaus and offices of the
 8 Department of Agriculture or transfer to such other agencies
 9 of the State and Federal Governments as may be requested
 10 by him to assist in carrying out this Act any funds made
 11 available to him under this Act.

12 SEC. 3. There are authorized to be appropriated such
 13 amounts as may be necessary to carry out the provisions
 14 of this Act. Any such amounts appropriated and any funds
 15 received by the Secretary under this Act shall remain per-
 16 manently available for the purposes of this Act without
 17 regard to any other laws concerning availability and dispo-
 18 sition of appropriated funds and the disposition of funds
 19 collected by officers or agencies of the United States.

20 *That the Secretary of Agriculture (hereinafter called the*
 21 *"Secretary") is authorized—*

22 *(1) To acquire by purchase, license, or other agree-*
 23 *ment, or by condemnation, the right to operate under processes*
 24 *or patents, now held by the Intercontinental Rubber Company*
 25 *or any of its subsidiaries, or by other companies or indi-*

viduals, relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation;

(2) To plant, or contract for the planting of, not in excess of seventy-five thousand acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment and facilities;

(3) To acquire by purchase, lease, or other agreement, or by condemnation, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the Western Hemisphere where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule; and to purchase, operate, and maintain equipment for the

1 *harvesting, storing, transporting, and complete processing of*
2 *guayule;*

3 (5) *To conduct studies, in which he may cooperate with*
4 *any other public or private agency, designed to increase the*
5 *yield of guayule by breeding or by selection, and to improve*
6 *planting methods; to make surveys of areas suitable for cul-*
7 *tivating guayule; to make experimental plantings; and to*
8 *conduct agronomic tests;*

9 (6) *To conduct tests, in which he may cooperate with*
10 *any other public or private agency, to determine the qualities*
11 *of rubber obtained from guayule and to determine the*
12 *most favorable methods of compounding and using guayule*
13 *in rubber manufacturing processes;*

14 (7) *To improve methods of processing guayule shrubs*
15 *and rubber and to obtain and hold patents on such new*
16 *processes;*

17 (8) *To sell guayule or rubber processed from guayule*
18 *and to use funds so obtained in replanting and maintaining*
19 *an area of seventy-five thousand acres of guayule inside the*
20 *Western Hemisphere; and*

21 (9) *To exercise with respect to rubber-bearing plants*
22 *other than guayule the same powers as are granted in the*
23 *foregoing provisions of this section with respect to guayule;*
24 *except that the total acreage of all plantings of rubber-bear-*

1 *ing plants other than guayule shall not exceed fifteen thou-*
2 *sand acres.*

3 *SEC. 2. (a) The Secretary is authorized to appoint such*
4 *employees, including citizens of countries in the Western*
5 *Hemisphere, as may be necessary for carrying out the pro-*
6 *visions of this Act. Such appointments may be made with-*
7 *out regard to the provisions of the civil-service laws, and the*
8 *compensation of the persons so appointed may be fixed without*
9 *regard to the provisions of the Classification Act of 1923, as*
10 *amended. All appointments so made by the Secretary shall*
11 *be made only on the basis of merit and efficiency.*

12 *(b) Notwithstanding the provisions of any other law*
13 *governing the expenditure of public funds, the General Ac-*
14 *counting Office shall not disallow credit for, nor withhold*
15 *funds because of, any expenditure which the Secretary shall*
16 *determine to have been necessary to carry out the provisions*
17 *of this Act.*

18 *(c) The Secretary may delegate any of the powers and*
19 *duties conferred on him by this Act to any agency or bureau*
20 *of the Department of Agriculture.*

21 *(d) The Secretary, with the consent of any board, com-*
22 *mission, independent establishment, corporation, or executive*
23 *department of the Government, including any field service*
24 *thereof, may avail himself of the use of information, serv-*

1 ices, facilities, officers and employees thereof, in carrying
2 out the provisions of this Act.

3 (e) The Secretary may allot to bureaus and offices of the
4 Department of Agriculture, or may transfer to such other
5 agencies of the State and Federal Governments as may be
6 requested by him to assist in carrying out this Act, any funds
7 made available to him under this Act.

8 SEC. 3. There are authorized to be appropriated such
9 amounts as may be necessary to carry out the provisions
10 of this Act. Any amounts so appropriated, and any funds
11 received by the Secretary under this Act, shall remain per-
12 manently available for the purposes of this Act without
13 regard to the provisions of any other laws relating to the
14 availability and disposition of appropriated funds and the
15 disposition of funds collected by officers or agencies of the
16 United States.

Amend the title so as to read: "A bill to provide for the
planting of guayule and other rubber-bearing plants in order
to make available a source of crude rubber for emergency
and defense uses."

[Report No. 935]

A BILL

To provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

By Mr. DOWNEX

DECEMBER 22, 1941

Read twice and referred to the Committee on Military Affairs

DECEMBER 23, 1941

Reported without amendment

JANUARY 5, 1942

Recommitted to the Committee on Military Affairs

JANUARY 7 (legislative day, JANUARY 6), 1942

Reported with amendments

Jan. 1922

S. 2152

IN THE SENATE OF THE UNITED STATES

JANUARY 12, 1942

Ordered to be printed

AMENDMENTS

Proposed by Mr. DANAHY to the bill (S. 2152) to provide for the planting of forty-five thousand acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses, viz:

1 On page 25, line 4, after the word "patents" and the
2 comma strike out the following: "now held by the Inter-
3 continental Rubber Company or any of its subsidiaries, or by
4 other companies or individuals".

5 On page 7, line 23, after the word "guayule" strike out
6 the semicolon.

7 On page 7, line 24, and page 8, lines 1 and 2, strike out
8 the following: "except that the total acreage of all plantings
9 of rubber-bearing plants other than guayule shall not exceed
10 fifteen thousand acres".

AMENDMENTS

Proposed by Mr. DANAHY to the bill (S. 2152)
to provide for the planting of forty-five
thousand acres of guayule in order to make
available a domestic source of crude rubber
for emergency and defense uses.

JANUARY 12, 1942

Ordered to be printed

retary-treasurer, American Federation of Labor; Daniel J. Tobin, president, International Brotherhood of Teamsters; Matthew J. Woll, vice president, American Federation of Labor.

Congress of Industrial Organizations: Philip Murray, president, Congress of Industrial Organizations, and chairman, Steel Workers' Organizing Committee; John L. Lewis, president, United Mine Workers of America; R. J. Thomas, president, United Automobile, Aircraft & Agricultural Implement Workers of America; Joseph Curran, president, National Maritime Union; Emil Rieve, president, Textile Workers of America; Julius Emspak, secretary-treasurer, United Electrical Radio & Machine Workers.

EXHIBIT G

THE WHITE HOUSE,

Washington, December 23, 1941.

GENTLEMEN OF THE CONFERENCE: Moderator Davis and Senator THOMAS have reported to me the results of your deliberations. They have given me each proposition which you have discussed. I am happy to accept your general points of agreement as follows:

1. There shall be no strikes or lock-outs.
2. All disputes shall be settled by peaceful means.
3. The President shall set up a proper War Labor Board to handle these disputes.

I accept without reservation your covenants that there shall be no strikes or lock-outs and all disputes shall be settled by peaceful means. I shall proceed at once to act on your third point.

Government must act in general. The three points agreed upon cover of necessity all disputes that may arise between labor and management.

The particular disputes must be left to the consideration of those who can study the particular differences and who are thereby prepared by knowledge to pass judgment in the particular case. I have full faith that no group in our national life will take undue advantage while we are faced by common enemies.

I congratulate you—I thank you, and our people will join me in appreciation of your great contribution.

Your achievement is a response to common desire of all men of good will that strikes and lock-outs cease and that disputes be settled by peaceful means.

May I now wish you all a Merry Christmas

Very sincerely yours,

FRANKLIN D. ROOSEVELT.

EXECUTIVE ORDER

ESTABLISHMENT OF THE NATIONAL WAR LABOR BOARD

Whereas by reason of the state of war declared to exist by joint resolutions of the Congress, approved December 8, 1941, and December 11, 1941, respectively (Public Laws Nos. 328, 331, 332, 77th Cong.), the national interest demands that there shall be no interruption of any work which contributes to the effective prosecution of the war; and

Whereas as a result of a conference of representatives of labor and industry which met at the call of the President on December 17, 1941, it has been agreed that for the duration of the war there shall be no strikes or lock-outs, and that all labor disputes shall be settled by peaceful means, and that a National War Labor Board be established for the peaceful adjustment of such disputes: Now, therefore, by virtue of the authority vested in me by the Constitution and the statutes of the United States, it is hereby ordered:

1. There is hereby created in the Office for Emergency Management a National War Labor Board, hereinafter referred to as the Board. The Board shall be composed of 12 special commissioners to be appointed by the President. Four of the members shall be repre-

sentative of the public; four shall be representative of employees; and four shall be representative of employers. The President shall designate the Chairman and Vice Chairman of the Board from the members representing the public. The President shall appoint four alternate members representative of employees and four representative of employers, to serve as Board members in the absence of regular members representative of their respective groups. Six members or alternate members of the Board, including not less than two members from each of the groups represented on the Board, shall constitute a quorum. A vacancy in the Board shall not impair the right of the remaining members to exercise all the powers of the Board.

2. This order does not apply to labor disputes for which procedures for adjustment or settlement are otherwise provided until those procedures have been exhausted.

3. The procedures for adjusting and settling labor disputes which might interrupt work which contributes to the effective prosecution of the war shall be as follows: (a) The parties shall first resort to direct negotiations or to the procedures provided in a collective-bargaining agreement. (b) If not settled in this manner, the Commissioners of Conciliation of the Department of Labor shall be notified if they have not already intervened in the dispute. (c) If not promptly settled by conciliation, the Secretary of Labor shall certify the dispute to the Board, provided, however, that the Board in its discretion after consultation with the Secretary may take jurisdiction of the dispute on its own motion. After it takes jurisdiction, the Board shall finally determine the dispute, and for this purpose may use mediation, voluntary arbitration, or arbitration under rules established by the Board.

4. The Board shall have power to promulgate rules and regulations appropriate for the performance of its duties.

5. The members of the Board (including alternates) shall receive necessary traveling expenses, and, unless their compensation is otherwise prescribed by the President, shall receive in addition to traveling expenses \$25 per diem for subsistence expense on such days as they are actually engaged in the performance of duties pursuant to this order. The Board is authorized to appoint and fix the compensation of its officers, examiners, mediators, umpires, and arbitrators; and the chairman is authorized to appoint and fix the compensation of other necessary employees of the Board. The Board shall avail itself, insofar as practicable, of the services and facilities of the Office for Emergency Management and of other departments and agencies of the Government.

6. Upon the appointment of the Board and the designation of its Chairman, the National Defense Mediation Board established by Executive Order No. 8716 of March 19, 1941, shall cease to exist. All employees of the National Defense Mediation Board shall be transferred to the Board without acquiring by such transfer any change in grade or civil-service status. All records, papers, and property, and all unexpended funds and appropriations for the use and maintenance of the National Defense Mediation Board, shall be transferred to the Board. All duties with respect to cases certified to the National Defense Mediation Board shall be assumed by the Board for discharge under the provisions of this order.

7. Nothing herein shall be construed as superseding or in conflict with the provisions of the Railway Labor Act (act of May 20, 1926, as amended, 44 Stat. 577; 48 Stat. 926, 1185; 49 Stat. 1169; 45 U. S. C. 151), the National Labor Relations Act (act of July 5, 1935, 49 Stat. 457; 29 U. S. C. 151 et seq.), the Fair Labor Standards Act (act of June 25, 1938; 52 Stat. 1060; 29 U. S. C. 201 et seq.), and the act to provide conditions for the

purchase of supplies, etc., approved June 30, 1936 (49 Stat. 2036; 41 U. S. C., secs. 35-45), or the act amending the act of March 3, 1931, relating to the rate of wages for laborers and mechanics, approved August 30, 1935 (49 Stat. 1011; 40 U. S. C., sec. 276 et seq.).

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, January 12, 1942.

1. The National War Labor Board is created in the Office for Emergency Management. It is composed of 12 persons, 4 representing, respectively, the public, employees, and employers. Twelve alternate members similarly represented are provided to serve on designation of the chairman in the absence of regular members.

2. The Board is authorized to settle all disputes which interrupt activities required for the effective prosecution of the war, except that disputes for which procedures for adjustment or settlement are otherwise provided shall not be within the jurisdiction of the Board until those procedures have been exhausted. The procedure is as follows:

- (a) If a dispute is not settled between the parties, they shall promptly give notice to the Conciliation Service.

- (b) If the dispute is not promptly settled by conciliation, the Secretary of Labor shall certify it to the Board, provided that the Board may take jurisdiction on its own motion after consultation with the Secretary.

- (c) The Board shall seek to settle the dispute by mediation or by voluntary reference to an arbitrator chosen by the parties. Mediation panels of one or more persons may be used, composed of members, alternate members, and associate members (appointed by the President for this purpose only) of the Board.

- (d) If the dispute is not thus settled, it shall be referred to the full Board, which shall either (1) make a final determination or (2) refer the dispute for final determination to a mediator or mediators to be selected by the Board from a list of persons appointed by the President.

3. The Board is authorized to promulgate rules and regulations. Its members receive per diem and traveling expenses. The personnel and the property of the National Defense Mediation Board is transferred to this Board.

4. Nothing in the order is to be construed as superseding or in conflict with the Railway Labor Act or the National Labor Relations Act.

FEDERALIZATION OF SOCIAL-SECURITY PROGRAM—LETTER FROM INDIANA BANKERS' ASSOCIATION

[Mr. WILLIS asked and obtained leave to have printed in the RECORD a letter addressed to him by W. W. Gasser, president of the Indiana Bankers' Association, on the subject of federalization of the social-security program, which appears in the Appendix.]

THE TRUMAN COMMITTEE—EDITORIAL FROM THE ST. LOUIS POST-DISPATCH

[Mr. LEE asked and obtained leave to have printed in the RECORD an editorial from the St. Louis Post-Dispatch of January 13, 1942, in commendation of the Truman committee, which appears in the Appendix.]

The VICE PRESIDENT. The routine morning business is concluded.

PRODUCTION OF RUBBER FROM GUAYULE

Mr. DOWNEY. Mr. President, I now move that the Senate proceed to the consideration of Senate bill 2152, to provide for the planting of guayule rubber shrubs.

The VICE PRESIDENT. The question is on the motion of the Senator from California.

The motion was agreed to; and the Senate proceeded to consider the bill (S.

2152) to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses, which had been reported from the Committee on Military Affairs with an amendment to strike out all after the enacting clause and insert:

That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, or by condemnation, the right to operate under processes or patents, now held by the Intercontinental Rubber Co. or any of its subsidiaries, or by other companies or individuals, relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation;

(2) To plant, or contract for the planting of, not in excess of 75,000 acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment and facilities;

(3) To acquire by purchase, lease, or other agreement, or by condemnation, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the Western Hemisphere where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of 75,000 acres of guayule inside the Western Hemisphere; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule; except that the total acreage of all plantings of rubber-bearing plants other than guayule shall not exceed 15,000 acres.

Sec. 2. (a) The Secretary is authorized to appoint such employees, including citizens of countries in the Western Hemisphere, as may be necessary for carrying out the provisions of this act. Such appointments may be made without regard to the provisions of the civil-service laws, and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments

so made by the Secretary shall be made only on the basis of merit and efficiency.

(b) Notwithstanding the provisions of any other law governing the expenditure of public funds, the General Accounting Office shall not disallow credit for, nor withhold funds because of, any expenditure which the Secretary shall determine to have been necessary to carry out the provisions of this act.

(c) The Secretary may delegate any of the powers and duties conferred on him by this act to any agency or bureau of the Department of Agriculture.

(d) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers, and employees thereof in carrying out the provisions of this act.

(e) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this act, any funds made available to him under this act.

Sec. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this act. Any amounts so appropriated, and any funds received by the Secretary under this act, shall remain permanently available for the purposes of this act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

Mr. DANAHER. Mr. President, I send to the desk an amendment, which I offer and ask to have stated. I think it comes in order at this time.

The VICE PRESIDENT. Two amendments are already pending. The clerk will state the amendment offered by the Senator from Connecticut.

The CHIEF CLERK. In the committee amendment, on page 5, commencing with line 24, it is proposed to strike out, down to line 1 on page 6, the following words:

Now held by the Intercontinental Rubber Co. or any of its subsidiaries, or by other companies or individuals.

The VICE PRESIDENT. The question is on agreeing to the amendment offered by the Senator from Connecticut to the amendment reported by the committee.

Mr. DOWNEY. Mr. President, I have no objection to the amendment.

The amendment to the amendment was agreed to.

Mr. DANAHER. Mr. President, I offer another amendment, which I send to the desk and ask to have stated.

The VICE PRESIDENT. The amendment to the committee amendment will be stated.

The CHIEF CLERK. In the committee amendment, on page 7, commencing in line 23, it is proposed to strike out the semicolon and insert a period and to strike out all of line 24 and lines 1 and 2 on page 8, in the following words:

Except that the total acreage of all plantings of rubber-bearing plants other than guayule shall not exceed 15,000 acres.

The VICE PRESIDENT. The question is on agreeing to the amendment offered by the Senator from Connecticut to the amendment reported by the committee.

Mr. DOWNEY. Mr. President, I have no objection to that amendment, either.

I think it is a perfectly proper amendment.

The amendment to the amendment was agreed to.

The VICE PRESIDENT. The bill is open to further amendment.

Mr. AUSTIN. Mr. President, I should like to ask the Senator from California what will be the effect of striking out line 24 on page 7 and lines 1 and 2 on page 8, in view of the fact that they constitute a limitation of the acreage which other rubber planting plants may have.

Mr. DANAHER. Mr. President, I did not elaborately state the purposes of the proposed amendments at this time, for I had done so for the Record the other day; and it was in that way that the matter came to the attention of the Senator from California and procured his concurrence in the suggested amendments.

Mr. AUSTIN. I did not understand the situation at all.

Mr. DANAHER. So that the Senator from Vermont will understand my purpose, let me say to him that under the bill the Secretary of Agriculture will be authorized to condemn or otherwise acquire certain guayule seeds, and he will be authorized to conduct experimental plantings of such seeds, all in the direction of acquiring a larger domestic rubber source. As clause (9), on page 7, had been worded hitherto, it would have limited the Secretary of Agriculture in his planting of guayule seeds on the one hand, and, on the other, it would have prevented him, under line 24, from planting other rubber-bearing plants to an acreage of not to exceed 15,000.

Mr. President, I would have the Senator from Vermont know that I feel that if the Secretary of Agriculture is to experiment in rubber plantings at all, he should be given free latitude within the language of the bill to plant goldenrod, for instance, or any other source of rubber, and not in any way be limited simply to the planting of guayule seeds. Therefore, by eliminating the limiting language which appears in subclause (9), line 24, page 7, and lines 1 and 2 on page 8, he would be authorized to exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the preceding provisions of the section with respect to guayule.

Does that answer the Senator's question?

Mr. AUSTIN. Mr. President, it is responsive, but it does not quite answer the question that is in my mind. I have this question about the effect of the change: Does not striking out the words leave the Secretary of Agriculture without any power at all to experiment with other rubber-bearing weeds than the guayule plant?

Mr. DANAHER. I am quite certain that that is not so, and I will answer the Senator categorically "No." For example, if the Senator will look at subclause (5), on page 7, he will find that the Secretary will be authorized—

To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

And—

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes.

If we are not to limit the Secretary of Agriculture, we ought in clause (9) on page 7 to authorize the Secretary to exercise with respect to rubber-bearing plants other than guayule the same powers, those to which I have just referred, which he is being granted with respect to guayule.

Does the Senator now see what is intended?

Mr. AUSTIN. That also is responsive, but it does not quite fill the void.

Mr. DANAHER. I shall be happy to try further.

Mr. AUSTIN. One further question, and then I think I will get the complete answer. With these words stricken from the bill, is not the effect to leave entirely to the discretion of the Secretary of Agriculture the determination of what acreage, under the total grant of power here, can be appropriated to experiments with weeds other than the guayule weed?

Mr. DANAHER. I will answer that question "Yes," and I think properly. In other words, if we refer to clause (2) on page 6, we find that the Secretary is authorized to plant, or to contract for the planting of, not in excess of 75,000 acres of guayule in certain areas; but he is not in any way limited, and should not be limited, in the event that he should find that some other rubber-bearing weed or plant will serve as a greater source of rubber. Suppose his experiments disclose that he can procure far more rubber from some other substance than from guayule. He should not be limited if in the course of his experiments he finds that the economy will be bettered by additional plantings in excess, say, of 75,000 acres; and, in any case, he will not be restricted in his total plantings of other rubber-bearing weeds.

Mr. AUSTIN. Mr. President, I agree with the Senator from Connecticut in the policy. I think that is a good policy; and, if the amendment will accomplish what he says about it, I am for it.

Mr. DANAHER. Mr. President, let me say by way of conclusion to the Senator from Vermont that when I first saw this bill on the calendar I did not like the way in which it appeared to give legislative sanction to the patents of the Intercontinental Rubber Co., whatever it is, or wherever it is. I do not know that its patents are good. I do not know that anybody can make them work; yet, because of the way the bill was drawn, one would be led to think that Congress was authorizing the Secretary to deal only with that one company.

I objected, therefore, when the bill came up by unanimous consent, with that thought in mind. Since then I have talked with certain officials of the Department of Agriculture in an effort to expand my own very limited knowledge of the subject, but in the direction of accomplishing the policy of the Secretary of Agriculture, which, it seemed to me,

was eminently proper. I find that, roughly, this is a statement of fact which should answer the thoughts in the mind of the Senator from Vermont:

That guayule experiments have been conducted by the Intercontinental Rubber Co. for a period of many years; that they have extensive plantings, and they have seeds which they have produced after many years of experimentation and treatment, which seeds constitute the only source available—so far as I know, at least—to the Secretary of Agriculture, upon which he may draw to conduct further experimental plantings. It is contemplated, I believe, that either through negotiation or condemnation, if necessary, the properties of the Intercontinental Rubber Co., including its seeds, may be taken by the Secretary of Agriculture.

I am informed that the land and the goodwill as well as the seeds and trade secrets of the Intercontinental Rubber Co. are worth somewhere in the neighborhood of a million dollars. They may be worth more. At any rate, the company in question, I believe, has been seeking to negotiate a sale of all its interests and its trade secrets and its seeds to the Department of Agriculture, for the reason that hitherto rubber from natural sources imported from the East Indies, particularly, could be had in this country at a price far cheaper than that for which it can possibly be produced from guayule.

Be that as it may, when we are faced with a rubber shortage, whatever means we can take reasonably and properly to expand our rubber supply should be taken. The Secretary concurs in that view, as will be found from a letter dated December 16, addressed to Representative FULMER on this very subject, which appears in the committee report. The points made by the Secretary, speaking through Under Secretary Appleby, as reported, have been confirmed to me in my investigation since the matter first came on the calendar.

I think that with this brief additional background for the pending bill and the reasons for the amendment, whatever views I had on the matter, at least, have been explained and, I hope, to the satisfaction of the Senator from Vermont.

Mr. AUSTIN. I thank the Senator from Connecticut.

Mr. BREWSTER. Mr. President—
The VICE PRESIDENT. Does the Senator from California yield to the Senator from Maine?

Mr. DOWNEY. I yield.

Mr. BREWSTER. Addressing myself for the moment to the proposal of the Senator from Connecticut, I think it should be clear that in striking out the limitation on other plants there is no implication that there is no authority. The authority for guayule is apparently limited to 75,000 acres. Does that limitation apply to other plants?

Mr. DANAHER. As I read it, I should say "Yes" for the simple reason that the language in lines 21 to 23, inclusive, on page 7, expressly states that the Secretary shall "exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the

foregoing provisions of this section with respect to guayule." I would interpret that language to mean that if there are powers, there are also limitations, and if there be limitations—and we find a limitation in clause 2 to 75,000 acres—then I say the same limitation would apply to other rubber-bearing plants.

Mr. BREWSTER. And that is the intent of the Senator's amendment?

Mr. DANAHER. That is the intent of my amendment.

Mr. O'DANIEL. Mr. President, I should like to offer an amendment to the bill, if it will meet no objection from the Senator from California. In view of the shortage of rubber, which has been brought to our country heretofore by water transportation, I am wondering whether it would not be better to confine our activities in the raising of guayule to continental United States. If the Senator from California has no objection, I should like to offer an amendment, that wherever the words "Western Hemisphere" appear in the bill the words "continental United States" be substituted.

Mr. DOWNEY. I hope the distinguished Senator from Texas will not press the amendment. It would be entirely satisfactory to me personally, and the bill as originally drafted contained that language, but the majority leader, the distinguished Senator from Kentucky [Mr. BARKLEY], asked that we substitute the words "Western Hemisphere" in place of "continental United States," and I consented to the amendment being made, and it was made when the bill was recommitted to the committee. I should prefer that the Senator not press the amendment.

Mr. O'DANIEL. Will not the Senator from California explain why he believes the proposed law should apply to the Western Hemisphere instead of to continental United States?

Mr. DOWNEY. I think the majority leader, the Senator from Kentucky [Mr. BARKLEY], made the request of me upon the possibility that we might wish to proceed with this development in northern Mexico, or at some other place outside the United States in the New World. Frankly, I have no partiality toward any particular form of bill. We vitally need guayule rubber, and whether all the guayule is planted in the United States, or some in northern Mexico, is not important so far as I can see. I could not consent to the Senator's amendment, because I did change the bill as it was originally at the suggestion of the majority leader, and unless he were here to consent to the change I could not do it.

Mr. REYNOLDS. Mr. President, will the Senator from California yield?

Mr. DOWNEY. I yield.

Mr. REYNOLDS. In particular reference to the matter under discussion by the distinguished Senators from California and Texas, I may add that it is my recollection that in the Committee on Military Affairs, where this question was gone into very thoroughly at the instance of the junior Senator from California, it was stated that at the present time a considerable amount of this product was being grown in our sister republic of Mexico, and for that reason, I

think, consideration was given to the utilization in this country of the plants grown in Mexico.

My recollection is that another theory advanced for embodying in the bill the words "Western Hemisphere" is that at the present time we are endeavoring with all our might to bring about a solidarity which is desired between continental United States and the Latin American countries. Some of us rather felt that in the development of rubber-producing plants we might create a little dissension or ill-feeling if we limited the production, under our law, to continental United States, when at the present time the guayule plant is being grown in Mexico.

Furthermore, we all know that in a number of Latin American countries, particularly Brazil, there is produced some natural rubber, which we are desirous of acquiring, and it would probably be better from the standpoint of diplomacy not to limit the production of the guayule plant.

Mr. O'DANIEL. Of course, I am in hearty agreement with the good-neighbor policy, and would offer no objection whatever to the production of guayule in old Mexico or any other republic. However, inasmuch as the United States of America is to finance the production, I should think the planting should be confined to continental United States. However, inasmuch as the majority leader, the Senator from Kentucky, has just arrived in the Chamber, I should very much appreciate the Senator from California asking him to explain the reason for including the entire Western Hemisphere.

Mr. DOWNEY. I may state to the distinguished leader that the Senator from Texas has just asked me to consent to an amendment to the bill by changing the words "Western Hemisphere" to "continental United States." I informed the Senator from Texas that I could not consent to such an amendment because I had changed the bill from that form originally to its present form at the suggestion and request of our majority leader and some other Senators.

Mr. BARKLEY. Mr. President, if the Senator from California will yield, I may state that as the bill was originally introduced it confined the planting of the guayule shrub to the United States. There are certain diplomatic and good-neighbor reasons which we all understand, I think, which made it seem to me that we should not limit it to continental United States. There are certain sections of South and Central America where experimental rubber production has already been inaugurated. Not only American citizens have been interested in that, but the Government of the United States is vitally interested in the production of rubber all over the Western Hemisphere, and there are certain sections of South and Central America where the climatic conditions really are as propitious for the production of rubber as they are in the Dutch East Indies and in Malaya.

But, for reasons which it is not necessary to explore here, the production of

rubber has largely been centered in the Pacific region, and it occurred to me and to other Senators that in order not to display any selfish motive on the part of the United States, it would be well to conduct the proposed experimentation throughout the Western Hemisphere wherever climatic or other conditions made it advantageous to do so. At the suggestion I made to the Senator from California a few days ago, he agreed to enlarge the bill so as to include the Western Hemisphere. I think it would be a mistake now to limit the planting to continental United States, because it may be desirable and it might become necessary to experiment with the plant in warmer regions, or in more propitious climates than may be afforded anywhere in the United States. At least it seems to me to be in harmony with our continental program of cooperation with all the other nations of the Western Hemisphere, and that it would be bad policy for us now to limit this experiment to the territory of the United States. That is the reason I suggested the change, and that is why I hope the provision will not now be changed again.

Mr. O'DANIEL. Mr. President, will the Senator from California yield to me?

Mr. DOWNEY. I yield.

Mr. O'DANIEL. Inasmuch as the United States Government is favoring the project, I am wholeheartedly in favor of conducting the experiment, as a practical proposition, in the continental United States. However, the war now takes precedence over everything, and if the State Department is of the opinion that it will aid in the prosecution of the war to have the bill include the entire Western Hemisphere, I shall gladly accede to the wishes of the Senator from California and not press the amendment.

Mr. DOWNEY. I appreciate the attitude taken by the distinguished Senator.

Mr. CHAVEZ. Mr. President, I should like to make a brief statement to supplement what the Senator from Kentucky has already so well stated. This very day, in Rio de Janeiro, a conference begins whose purpose is to obtain hemispheric solidarity. Some of the countries to the south of us have some things which we do not have, in some cases geographical features, in others climatic conditions, and in other cases land on which certain plants whose products go into strategic materials may be grown to advantage. It seems to me that any amendment of the bill which would in any way injure its purpose to have the United States cooperate in raising this particular plant throughout the Western Hemisphere, would be detrimental to the hemispheric solidarity we are now trying to accomplish. We are trying to show that we mean what we say, and that we really are good neighbors. We are trying to show the world that the countries of the Western Hemisphere are as one against the common enemy. It would be exceedingly undesirable for the Congress of the United States to say with respect to guayule, "We want it all for ourselves," on the very day of the opening of the Rio de Janeiro conference, by means of which an effort is being made to

strengthen and solidify the bonds between the countries of the Western Hemisphere.

Mr. DOWNEY. I thank the distinguished Senator.

Mr. ELLENDER. Mr. President, will the Senator yield to me for a question?

Mr. DOWNEY. Does the question relate to the bill, may I ask the Senator?

Mr. ELLENDER. Yes; it does.

Mr. DOWNEY. I yield to the Senator.

Mr. ELLENDER. What I wish to say probably is not directly connected with the object of the bill itself, but I received a letter this morning from a constituent whose name is Frank L. Dusenbury. I do not suppose Mr. Dusenbury knows that the Senator from California has introduced a bill dealing with guayule. Mr. Dusenbury writes as follows:

Mr. W. D. Owens and the writer own 60-percent interest in a synthetic rubber process, our source being the sap or gum of weeds, grass, and vegetables.

This was perfected by an old gentleman named Henry Wilson, and we obtained a patent in 1940 and tried to make the start in production here, but failed, due to two causes:

First, we did not have enough money; and, secondly, no great dependable source from whence suitable sap or gum might be obtained.

It is possible to grow enough weeds or the kinds of grass that have yielded gum or latex to produce a satisfactory product.

We had the authorities in Washington to analyze our product, and they declared it to be rubber, and Dr. Wilson made representation to us that he could produce it in quantity at a cost of about 3 cents per pound.

With enough help, both physical and mental, and, above all, financial, we might complete a set-up to produce in quantity what we call herball latex, which can be used by tire makers and others now needing synthetic rubber.

I have not studied the Senator's proposal, but, should the Senator's bill be passed, I wonder whether the gentlemen referred to in the letter from which I have just read could obtain help in order to operate their factory for the production of synthetic rubber.

Mr. DOWNEY. Yes, Mr. President; I may say to the distinguished Senator from Louisiana that I am sure the Department of Agriculture would be very happy to give full consideration to their process. Likewise, the Rubber Division of the O. P. M. is assiduously seeking every possible means to produce synthetic rubber. I am sure either the O. P. M. or the Department of Agriculture would be very happy to consider the process referred to.

Mr. ELLENDER. So the operation of the Senator's bill is not confined to guayule?

Mr. DOWNEY. No; it is not.

Mr. LA FOLLETTE. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. LA FOLLETTE. I note that the report of the committee indicates that the recommendations of the Secretary of Agriculture and the Comptroller General have been incorporated in the substitute measure, and I note that subsection (b) of section 2 on page 8 provides in effect that the General Accounting Office shall have nothing to do with the ex-

penditures under this bill. That prompts me to ask the Senator from California what reason the General Accounting Office or the Comptroller General advanced for eliminating the expenditures under this bill from review by the General Accounting Office.

Mr. DOWNEY. I will say to the distinguished Senator from Wisconsin that I do not understand that to be the condition under the bill in its present form.

Mr. LA FOLLETTE. Let me read from page 8, subsection (b) of section 2, line 12:

(b) Notwithstanding the provisions of any other law governing the expenditure of public funds, the General Accounting Office shall not disallow credit for, nor withhold funds because of, any expenditure which the Secretary shall determine to have been necessary to carry out the provisions of this act.

Mr. DOWNEY. I may say that that provision was drafted by Mr. Wood so as to be in conformity with the wishes of the General Accounting Office.

Mr. LA FOLLETTE. Does the Senator know what reasons they advanced for not wanting to have any power to disallow expenditures made under this bill? In my experience it has not been the habit of the Comptroller General or the General Accounting Office voluntarily to suggest that they should not have power concerning expenditures made by other departments of the Government. On the contrary, it has always been my understanding, and I think quite properly so, that they have felt that expenditures should be reviewed by them.

Mr. CONNALLY. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. CONNALLY. Does the bill of the Senator from California contemplate the acquisition and operation of plants for the production of rubber from guayule?

Mr. DOWNEY. Yes.

Mr. CONNALLY. It is my opinion that it would not be practicable to submit to the General Accounting Office a statement of expenditures every time certain workmen were paid in connection with the operation of a plant.

Mr. LA FOLLETTE. The General Accounting Office does not prevent the disbursement of money. Its duty is to review expenditures after they have been made; and if it finds that any have been made which, in its opinion, are contrary to the statutes relating to them, they disallow such expenditures.

I have had no opportunity to look into this matter, but my curiosity was aroused, first, by the statement that the substitute was in conformity with the recommendations of the General Accounting Office and the Secretary of Agriculture, and then to find that in carrying out such recommendations the General Accounting Office for the first time, so far as we know, has suggested that it should not have power to disallow expenditures under the bill.

Mr. DOWNEY. I may say to the distinguished Senator from Wisconsin that my mind has been principally occupied with the rubber phases of this matter, because our situation will become so desperate and critical within 12 months that we can hardly exaggerate it. I must

admit that probably I did not give the amount of consideration to the financial part of the bill that I should have given. The bill was originally drafted by the Department of Agriculture, and I presented it in that form. I may say to the distinguished Senator that the Comptroller's office made certain objections. I turned over the letter from the Comptroller's office to Mr. Wood, and, with the consent of the Department of Agriculture, the bill was drawn in conformity with the desires of the Comptroller's office.

Mr. LA FOLLETTE. That statement completely satisfies me, Mr. President, because I have great confidence in Mr. Wood and his associates.

Mr. DOWNEY. I appreciate the Senator's remarks, and I will say to the distinguished Senator that if the bill passes both Houses and goes to conference, I shall study the particular point made by the Senator, and see that it is again reviewed.

The VICE PRESIDENT. The question is on agreeing to the committee amendment as amended.

The amendment as amended was agreed to.

The bill (S. 2152) was ordered to be engrossed for a third reading, read the third time, and passed.

The title was amended so as to read: "A bill to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses."

PRODUCTION OF ALCOHOL

Mr. GEORGE. Mr. President, from the Finance Committee I report favorably, without amendment, House bill 6325, to amend certain provisions of the Internal Revenue Code relating to the production of alcohol, and I submit a report (No. 955) thereon. Out of order, I ask unanimous consent for the immediate consideration of the bill. In this connection let me say that I have conferred with both the majority leader and the minority leader, and neither objects to the present consideration of the bill.

Mr. BARKLEY. Mr. President, not only do I not object, but I urge immediate consideration of the bill, because it authorizes the production of industrial alcohol concurrently with the production of distilled liquors. Alcohol is absolutely essential in our national defense; and I hope the bill will be passed without delay.

Mr. NORRIS. Mr. President, will the Senator yield?

Mr. GEORGE. I yield.

Mr. NORRIS. I do not feel that I ought to object to the present consideration of this bill, because I realize its great importance. Yet I am not familiar with it. For some time I have been studying the production of alcohol. I am not able to suggest any amendments, because I have not gathered together the documents which I have been considering. The situation is a little embarrassing to me. Let me ask the Senator if there is any real necessity for expedition.

Mr. GEORGE. Yes; I was about to make such a statement.

The Director General of O. P. M. has issued an order requiring distilleries to

produce industrial alcohol for use by the Army and Navy in the making of munitions. That order required the production to begin at midnight last night. Under the law a distiller who in the same plant is making alcohol for beverage purposes and also industrial alcohol must carry on separate operations, that is, in point of time. They may not be made concurrently. This bill does only one thing. It enables the distillers to produce industrial alcohol concurrently with alcohol for beverage purposes, and it would not interfere with anything else. It amends the code section. It is intended in the distilleries to use corn and other grains for the purpose of producing the alcohol now needed for war purposes, and, of course, to relieve the strain which is placed upon sugar and molasses to that extent, to prevent shortage.

The bill comes before us with the full recommendation of the Secretary of War, the Secretary of the Navy, the O. P. M., and all the other agencies of Government concerned.

Mr. NORRIS. Mr. President, I am satisfied with the Senator's explanation. So far as I am concerned, I shall make no objection.

The VICE PRESIDENT. The bill will be stated by title for the information of the Senate.

The CHIEF CLERK. A bill (H. R. 6325) to amend certain provisions of the Internal Revenue Code relating to the production of alcohol.

The VICE PRESIDENT. Is there objection to the present consideration of the bill?

There being no objection, the bill was considered, ordered to a third reading, read the third time, and passed.

WAR PRODUCTION BOARD

Mr. TAFT. Mr. President, yesterday the President announced that he was setting up a new War Production Board with a chairman who would have full authority over the procurement and production of war materials. The President is to be greatly commended for this tremendously important step. The form of organization is one which was extremely successful during the World War under the chairmanship of Mr. Baruch.

It seems to me proper to call attention to the fact that on June 15, 1940, I offered an amendment providing for exactly this set-up—a war-resources administration with a single head and an advisory council. It is the organization called for by the industrial mobilization plan which for years had been approved by the War and Navy Departments. My amendment was defeated. A somewhat similar amendment was offered by the senior Senator from Vermont [Mr. AUSTIN] on June 6 and was defeated by a vote of 46 to 31, largely because a letter from the President was read on the floor of the Senate maintaining that the legislation was unnecessary because of the formation of the old Council of National Defense, made up of seven men without even a chairman. Subsequently I introduced a bill to provide for a war-resources administration, and I reintroduced that bill in April 1941.

The Executive order providing for the Nelson Defense Board has not yet been

issued, but I venture to suggest that legislation should still be enacted providing for this defense board with a single administrator. Mr. Nelson will be on much sounder ground if he has statutory authority for his position.

I should also like to suggest at this time that similar action might well be taken in connection with the control of commodities for civilian supply. Regardless of the outcome of the price-control bill, the various powers relating to commodity control are divided between at least four departments of the Government. Mr. Henderson has charge of prices; Mr. Nelson of priorities; Mr. Jones of buying and selling; and Mr. Wickard of many other functions relating to agricultural commodities. I believe another agency should be set up with an over-all Administrator of Commodity Control, and an Advisory Council made up of the Price Administrator, the Director of Priorities, the Federal Loan Administrator, the Secretary of Agriculture, and perhaps other Government officials. The question of civilian supply, commodity control, prices, and rationing is distinct from that of war production, but it is of equal importance and of equal difficulty. It might well be handled in exactly the same manner and by the same organization to which we finally have come in the matter of war production.

Mr. AUSTIN. Mr. President, will the Senator yield for a question?

Mr. TAFT. I have not the right to yield to the Senator. The Senator from Missouri [Mr. TRUMAN] has the floor.

Mr. AUSTIN. I beg the Senator's pardon. I desired to ask a question of the Senator from Ohio respecting the statement in which he has referred to me. Will the Senator from Missouri yield to me?

Mr. TRUMAN. I yield.

Mr. AUSTIN. I desire to ask the Senator from Ohio if it is not true that a board corresponding to the War Production Board which now has been set up by Executive order was set up by Executive order during the World War, and that it had no sanction whatever except the voluntary consent of those upon whom it operated.

Mr. TAFT. I do not know, frankly, whether the Board was a board authorized by statute; but certainly it had almost no legal sanction for any powers. I am sure of that. Its operation was almost entirely without legal sanction.

Mr. AUSTIN. I should like to ask a further question, and I shall not long delay the Senator from Missouri.

In practice, is it not true that the pressure was brought or was threatened to be brought through such influences as the exercise of priorities—priorities regarding materials, priorities regarding transportation—and priorities really became the sanction behind the operations of the War Industries Board, with Mr. Baruch at its head?

Mr. TAFT. Certainly that was the main sanction.

Mr. AUSTIN. I thank the Senator from Missouri.

FEDERALIZATION OF SOCIAL SECURITY PROGRAM

Mr. WILLIS. Mr. President, will the Senator yield?

Mr. TRUMAN. I yield.

Mr. WILLIS. Communications from leaders among my constituents have brought to my attention a widespread fear that Indiana's employment-stabilizing merit system and its entire reservoir of \$65,000,000 in unemployment compensation funds are in danger of being absorbed into a federalized pool. I ask a few moments of the Senate's time in order to outline the basis of these fears, and to point out the dangers which would follow the federalization of unemployment compensation services.

There is good reason to believe that Federal administration of State unemployment compensation funds has been anticipated and planned by the administration for at least a year, notwithstanding repeated denial in high administration quarters.

When State and other employment services were federalized on January 1, for the declared purpose of increasing the speed and efficiency with which skilled and unskilled labor might be made available to war industry, there quite naturally arose much new suspicion that it was a long step toward complete federalization of unemployment compensation as well.

This was again denied by administration officials. Federal Security Administrator McNutt was quoted in a Social Security Board press release of December 19 as stating that "the unemployment-compensation systems in each State would remain State-operated, as heretofore."

If Social Security Administrator McNutt is still willing to leave unemployment compensation in the hands of the States, then the interest in federalization must stem from some quarter of the administration intent upon a more extensive practice of the New Deal philosophy of collectivism.

More than 4 months ago a provision was slipped into the Labor and Federal Security appropriation bill appropriating \$65,500,000 "for grants to States for unemployment compensation administration."

The Senator from Connecticut [Mr. DANAHY] unsuccessfully endeavored to have the provision stricken out, declaring that "without any notice whatever to the Congress, this legislation was attached to an appropriation bill, and fundamentally the entire program of administration of the State employment services was altered."

Before the bill went to conference, an amendment by the Senator from Arizona [Mr. HAYDEN] was substituted for the Danahy amendment, virtually restoring the Federal-control feature to which the Senator from Connecticut had objected. The conference committee took no action at that time, announcing that "due to difficulties of working out a suitable provision, action on the merits was deferred with the understanding that it would be considered in a later bill."

But it is extremely interesting to note that the conference report states that "the conferees were impressed with the purpose of the amendment"—that of the Senator from Arizona [Mr. HAYDEN]—which embodied the principle of Federal control.

Meanwhile John J. Corson 3d, thoroughgoing advocate of the New Deal's economic philosophy, has been named to the position of Director of the United States Employment Service from a directorship of the Bureau of Old Age Insurance, the only federally controlled branch of the Social Security Board. Obviously the administration is as intent upon securing federalization of State unemployment compensation funds as it was upon federalizing the employment offices.

For the federalization of employment services as a wartime measure there was at least a plausible argument. For the federalization of State compensation funds there is not. It would mean, among other things, the end of Indiana's merit system, whereby employers are credited with their contributions to employment stability.

It may be this very stability which is objectionable to the newly federalized employment service, which has declared its intention to move many employees from their present positions.

With the employment problem certain to be worse after the war than now, it is obvious that there will be no administration move at that time toward decentralization. The present decentralized administration of unemployment compensation funds must be preserved by successfully combating any move to extend and consolidate the Federal Government's control of the life strings of the Nation's economy.

INTERIM REPORT OF SPECIAL COMMITTEE TO INVESTIGATE THE NATIONAL DEFENSE PROGRAM

Mr. TRUMAN. Mr. President, the special committee of 10 Members of the Senate, appointed pursuant to Senate Resolution 71 to make a full and complete study and investigation of the operation of the national defense program, herewith submits an interim report (Rept. No. 480, pt. 5) covering the matters which have been considered by it during the year 1941.

The VICE PRESIDENT. The report will be received and printed.

Mr. TRUMAN. Mr. President, the committee has held public hearings, commencing April 15, 1941. To date, 252 witnesses have testified, some of them on a number of different occasions. The printed record of such testimony comprises more than 3,000 pages. The committee also privately considered a number of matters as to which the committee was unable to schedule public hearings.

The committee's principal purpose is to ascertain that the billions of dollars being allocated to the national defense program are being efficiently and economically expended so as to obtain a maximum of production with a minimum of expense and a minimum of dislocation to the civilian economy.

Jun. 19



77TH CONGRESS
2D SESSION

S. 2152

IN THE HOUSE OF REPRESENTATIVES

JANUARY 19, 1942

Referred to the Committee on Agriculture

AN ACT

To provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, or by condemnation, the right to operate under proc-
7 esses or patents relating to the growing and harvesting of
8 guayule or the extraction of rubber therefrom, and such prop-
9 erties, processes, records, and data as are necessary to such
10 operation;

1 (2) To plant, or contract for the planting of, not in ex-
2 cess of seventy-five thousand acres of guayule in areas in the
3 Western Hemisphere where the best growth and yields may
4 be expected in order to maintain a nucleus planting of guayule
5 to serve as a domestic source of crude rubber as well as of
6 planting material for use in further expanding guayule plant-
7 ing to meet emergency needs of the United States for crude
8 rubber; to establish and maintain nurseries to provide seed-
9 lings for field plants; and to purchase necessary equipment
10 and facilities;

11 (3) To acquire by purchase, lease, or other agreement,
12 or by condemnation, rights to land for the purpose of making
13 plantings of guayule; to make surveys, directly or through
14 appropriate Government agencies, of areas in the Western
15 Hemisphere where guayule might be grown; and to establish
16 and maintain records indicating areas to which guayule
17 cultivation could be extended for emergency production;

18 (4) To construct or operate, or to contract for the oper-
19 ation of, factories for the extraction of rubber from guayule;
20 and to purchase, operate, and maintain equipment for the
21 harvesting, storing, transporting, and complete processing of
22 guayule;

23 (5) To conduct studies, in which he may cooperate with
24 any other public or private agency, designed to increase the
25 yield of guayule by breeding or by selection, and to improve

1 planting methods: to make surveys of areas suitable for cul-
2 tivating guayule; to make experimental plantings; and to
3 conduct agronomic tests;

4 (6) To conduct tests, in which he may cooperate with
5 any other public or private agency, to determine the qualities
6 of rubber obtained from guayule and to determine the
7 most favorable methods of compounding and using guayule
8 in rubber manufacturing processes;

9 (7) To improve methods of processing guayule shrubs
10 and rubber and to obtain and hold patents on such new
11 processes;

12 (8) To sell guayule or rubber processed from guayule
13 and to use funds so obtained in replanting and maintaining
14 an area of seventy-five thousand acres of guayule inside the
15 Western Hemisphere; and

16 (9) To exercise with respect to rubber-bearing plants
17 other than guayule the same powers as are granted in the
18 foregoing provisions of this section with respect to guayule.

19 SEC. 2. (a) The Secretary is authorized to appoint such
20 employees, including citizens of countries in the Western
21 Hemisphere, as may be necessary for carrying out the pro-
22 visions of this Act. Such appointments may be made with-
23 out regard to the provisions of the civil-service laws, and the
24 compensation of the persons so appointed may be fixed with-
25 out regard to the provisions of the Classification Act of 1923,

1 as amended. All appointments so made by the Secretary
2 shall be made only on the basis of merit and efficiency.

3 (b) Notwithstanding the provisions of any other law
4 governing the expenditure of public funds, the General Ac-
5 counting Office shall not disallow credit for, nor withhold
6 funds because of, any expenditure which the Secretary shall
7 determine to have been necessary to carry out the provisions
8 of this Act.

9 (c) The Secretary may delegate any of the powers and
10 duties conferred on him by this Act to any agency or bureau
11 of the Department of Agriculture.

12 (d) The Secretary, with the consent of any board, com-
13 mission, independent establishment, corporation, or executive
14 department of the Government, including any field service
15 thereof, may avail himself of the use of information, serv-
16 ices, facilities, officers and employees thereof, in carrying
17 out the provisions of this Act.

18 (e) The Secretary may allot to bureaus and offices of the
19 Department of Agriculture, or may transfer to such other
20 agencies of the State and Federal Governments as may be
21 requested by him to assist in carrying out this Act, any funds
22 made available to him under this Act.

23 SEC. 3. There are authorized to be appropriated such
24 amounts as may be necessary to carry out the provisions
25 of this Act. Any amounts so appropriated, and any funds

1 received by the Secretary under this Act, shall remain per-
2 manently available for the purposes of this Act without
3 regard to the provisions of any other laws relating to the
4 availability and disposition of appropriated funds and the
5 disposition of funds collected by officers or agencies of the
6 United States.

Passed the Senate January 15, 1942.

Attest:

EDWIN A. HALSEY,
Secretary.

AN ACT

To provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

JANUARY 19, 1942

Referred to the Committee on Agriculture

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77TH CONGRESS }
2d Session }

HOUSE OF REPRESENTATIVES

{ REPORT
No. 1685 }

GUAYULE RUBBER

JANUARY 27, 1942.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed

Mr. FULMER, from the Committee on Agriculture, submitted the following

REPORT

[To accompany S. 2152]

The Committee on Agriculture, to whom was referred the bill (S. 2152) to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses, having considered the same, report thereon with a recommendation that it do pass, with the following amendments:

Page 1, line 6, strike out the wording: "or by condemnation."

Page 1, line 10, strike out the semicolon, insert a comma and the following wording:

including but not limited to any such rights owned or controlled by the Intercontinental Rubber Company, or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents and processes of the Intercontinental Rubber Company, or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Company or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000.

Page 2, line 3, strike out the words "Western Hemisphere" and insert in lieu thereof the words: "United States".

Page 2, line 9, following the word "equipment" insert a comma.

Page 2, line 10, strike out the word "and", also strike out the semicolon following the word "facilities", insert a comma and the following wording: "and land for nurseries".

Page 2, line 11, strike out the word "purchase" and the following comma.

Page 2, line 12, strike out the wording "or by condemnation," and insert in lieu thereof the following wording: "for not exceeding ten years,".

Page 2, lines 14 and 15, strike out the wording "Western Hemisphere" and insert in lieu thereof the wording: "United States".

Page 2, line 22, strike out the semicolon, insert a comma and the following wording: "and to purchase land as sites for processing plants".

Page 3, line 15, strike out the wording "Western Hemisphere" and insert in lieu thereof the following wording: "United States".

Page 3, lines 20 and 21, strike out the following wording: ", including citizens of countries in the Western Hemisphere,".

Page 4, strike out all of lines 3 to 8, inclusive, also change the lettering of subparagraphs (c), (d), and (e) to (b), (c), and (d), respectively.

Page 5, line 6, following the period, insert a new sentence as follows:

Pending the making of the initial appropriation to carry out this Act, the Secretary is authorized to use, for purchases or operations that he finds necessary under this Act before the making of such appropriation, the funds available to any agency or agencies of the Department of Agriculture, and any such funds so used shall be reimbursed from the appropriation made to carry out this Act.

Change the title so as to read:

A bill to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

GENERAL STATEMENT

S. 2152, as amended, authorizes the Secretary of Agriculture to plant up to 75,000 acres of guayule, to raise, harvest, and process the shrub, to sell the rubber, and utilize funds so obtained for the replanting and maintenance of a total of 75,000 acres. After deresination, which is a simple inexpensive process, guayule rubber is essentially the same as natural crude rubber from para rubber trees.

The bill authorizes the Secretary of Agriculture to exercise the same authority with respect to rubber-bearing plants other than guayule and to process rubber from natural stands of rubber-bearing plants. The outbreak of war in the Pacific and the attendant military and naval action make it possible that for an indefinite period all crude rubber imports from the east to the United States will be prevented by Japanese military forces. It is possible that the United States must depend upon crude rubber now in the country, reclaimed rubber, synthetic rubbers, and new supplies of crude rubber that can be developed in the Western Hemisphere. Reserve stocks of rubber now on hand can be supplemented immediately by enlarged production of reclaimed rubber and expansion of our facilities for production of synthetics. Energetic action should result in materially increased imports of rubber from Latin American countries. Even with this development it is foreseen that there will be an increased need for new supplies of crude rubber in the United States within a few years. By utilizing present stocks of crude rubber and new stocks mainly from wild trees in Latin America, the reclaim and synthetics can be made to meet our imperative needs of the near future, but fresh stocks of crude rubber will be needed to revivify the reclaim and to mix with synthetics to meet critical needs in the several years interim before the Para rubber trees now being planted in the Western Hemisphere can be tapped. Guayule rubber is not presented as an immediate answer to our needs, and the present authorization is limited to the planting of the present available seed of improved varieties which is sufficient to plant not more than 75,000 acres. If later authorization is given for expansion of plantings beyond the limits of the

present bill, appreciable supplies of rubber can be produced from guayule within 3 years and a large amount could be obtained within 5 to 6 years. It is at that period, 3 to 6 years from now, that the greatest need for new supplies of crude rubber will be most pressing in order to supplement and take greatest advantage of available reclaim and synthetics.

The committee has heard the testimony of competent rubber experts who have certified that the rubber produced from the guayule plant is comparable with the present crude rubber and may be readily substituted for it. The cultivation of guayule in the United States has been demonstrated as feasible and there are lands in California, Arizona, New Mexico, and Texas where it can be successfully grown. Rubber has been extracted from wild plants in Mexico for many years and has been utilized successfully in manufacturing processes. The manufacturers of tires and other rubber articles are fully informed as to the quality of guayule rubber which can be used without any change in present manufacturing equipment.

S. 2152, as amended, provides for the immediate acquisition of properties now held by private individuals engaged in growing and processing of guayule or other rubber-bearing plants and for planting and/or processing of rubber-bearing plants by the Government in suitable areas of the United States. Under provisions of this act the Secretary of Agriculture would be empowered to proceed to make nursery plantings of guayule immediately with any funds available in the Department of Agriculture even before actual appropriations for this work have been made. Under this authority the Secretary of Agriculture would be enabled to develop nurseries and make plantings during the coming spring season in order to avoid the loss of a year's time which might occur if authorization and appropriation were not made available in the near future. A detailed financial statement will be prepared in connection with requests for appropriations to prosecute the work authorized under the act. From its investigation the committee is able to assure the House of Representatives that expenditures under this authorization would be insignificant compared with the cost of any other rubber or rubber substitute development.

PROVISIONS OF THE BILL

The first section of the bill authorizes the Secretary of Agriculture, in general, to acquire the right to operate under patents and processes relating to the growing and harvesting of guayule and the extraction of rubber therefrom and to obtain the properties, processes, records, and data necessary to such operation. This section also authorizes the Secretary to plant, or contract for the planting of, a maximum of 75,000 acres of guayule in the United States for the purpose of maintaining a nucleus planting of guayule to serve as a domestic source of crude rubber and to provide planting material for further expansion to meet emergency needs of the United States.

In addition, the Secretary is authorized to purchase land for nurseries and as sites for factories for processing guayule. The committee believes that purchase of land should be limited to such purposes and that the land to be planted to the guayule shrub, other than the land purchased from the Intercontinental Rubber Co., should be leased for a period of not to exceed 10 years. There are

included provisions for authorizing the Secretary to purchase necessary equipment, to construct and operate, or to contract for constructing and operating, processing plants for the extraction of rubber from guayule, and broad authority is given for experimentation with a view to improving the rubber yield of guayule and the manufacturing processes in which guayule is used.

Provisions have been inserted in the bill to authorize the Secretary to pay not in excess of \$2,000,000 to the Intercontinental Rubber Co. for its properties, real and personal, in California, and for the rights to operate under patents and processes concerning guayule planting, cultivation, and processing owned or controlled by the company. Testimony before the committee revealed, that, unless the project authorized by the bill is to be delayed several years, immediate arrangements must be made to acquire approximately 23,000 pounds of seed of an improved strain of guayule now owned by the company and to secure the data, processes, patents, equipment, and other facilities of the company. This company has been experimenting for many years with domestic cultivation of guayule and, at the present time, is the sole source of the seed of improved varieties for domestic cultivation and has an experiment station of considerable size, including a nursery, growing shrub, and a processing factory in Salinas Valley, Calif. The bill authorizes the purchase of the property of the company in California, but not the real estate of the company in Arizona, which does not appear to be of material worth for guayule production.

The committee realize that it is difficult to appraise the value of the company's assets for the purpose of purchase, especially in the present emergency. Under normal conditions, it appears that the commercial value of these assets would probably be a great deal less than the amount authorized in the bill. However, in view of the present critical situation with respect to rubber supplies, the assets of the company, especially the seed and the processes developed by the company, take on increased values incapable of exact measurement. Accordingly, it seems to the committee, after considering the information presented to it, that as much as \$2,000,000 should be authorized for the purchase from Intercontinental Rubber Co.

In the first section of the bill, the committee have restricted the planting of guayule to the United States. The committee have also omitted provisions for condemnation of interests in land, since it would seem that specific authority for condemnation is unnecessary under general principles of law applicable to acquisition of interests in land by the United States.

The Secretary is also authorized to exercise, with respect to rubber-bearing plants other than guayule, the same powers as are granted with respect to guayule. Under this provision of the bill, experimentation work can be engaged in with respect to rubber-bearing plants, in addition to guayule, and rubber-bearing wild shrubs and plants can be transported to and processed in the factories used for extracting rubber from guayule.

Section 2 of the bill authorizes the Secretary to appoint employees without regard to the provisions of civil-service laws and the Classification Act of 1923. Through the provisions of this section, persons, including Mexicans, who have had long experience with the domestic cultivation of guayule by the International Rubber Co., can be employed.

The remaining provisions of this section authorize the Secretary to utilize other agencies of the Government and to allot funds to bureaus or agencies of the Department of Agriculture and to agencies of the State and Federal Governments called upon to assist in carrying out the bill.

Section 3 of the bill authorizes the appropriation of such funds as may be necessary and sets up a revolving fund for the purpose of carrying out the bill. Provision has also been made to authorize the Secretary to utilize funds of any other agency of the Department of Agriculture, subject to reimbursement, in the event that the Secretary determines that expenditures to carry out the act are necessary before appropriation to carry out the act is made.

The committee attach to this report the copy of a letter written by the Department of Agriculture to Hon. H. P. Fulmer, chairman of the Committee on Agriculture, House of Representatives, on December 16, 1941, in support of a House bill, similar to the Senate bill now under consideration. In this bill, the Secretary of Agriculture recommends the passage of the House bill and sets forth at length the facts upon which the recommendation is based.

Report from the Department of Agriculture of December 16 follows:

DEPARTMENT OF AGRICULTURE,
Washington, December 16, 1941.

Hon. H. P. FULMER,

Committee on Agriculture, House of Representatives.

DEAR MR. FULMER: This is in reply to your request of June 12, 1941, for a report on H. R. 5030, to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

The bill provides for establishing a corporation in the Department of Agriculture with necessary powers to plant or contract for planting 45,000 acres of the indigenous desert shrub, guayule, to grow the plants, and to provide for the extraction of the rubber. It provides for selling the rubber and using funds so obtained to maintain a planting of 45,000 acres of guayule.

In the opinion of the Department of Agriculture, the objects of H. R. 5030 are desirable in providing the essential means for a temporary source of natural rubber for emergency use by a method that avoids encouraging perpetuation of an uneconomic industry in the United States.

The Department of Agriculture has repeatedly pointed out that the wild plant, guayule, is a practicable and reasonably efficient but limited source of rubber; that it has been amply demonstrated by large-scale tests conducted by a commercial rubber company over a long period of years that improved guayule cultivated in the United States will produce rubber acceptable to rubber manufacturers and usable without alteration of manufacturing machinery; that the crop can be harvested and processed 4 or 5 years after field plantings are made at costs not unreasonably high, but substantially higher than the costs of producing rubber from the Para rubber tree in the American Tropics; that the shorter cycle of the cultivated guayule plant offers the possibility of obtaining rubber earlier than from planted Para rubber trees. Therefore, in the present emergency which is certain to involve drastic curtailment and possibly complete cut-off of rubber supplies from the Orient, guayule is a demonstrated, practicable recourse for supplies of rubber.

Calculations made by the Department rubber experts indicate that the proposal in H. R. 5030 fits very well into a comprehensive plan for the progressive utilization of natural rubber from several available sources, including rubber from wild Hevea and Castilla rubber trees in the American Tropics and from cultivated guayule to revivify reclaimed rubber in the United States and provide for the strategic and other reasonable needs for rubber until low-cost plantation Hevea rubber is available in quantity from the American Tropics.

The problem of replacing our present sources of rubber supply will not easily be met by concentrating on a single source such as synthetic rubber. The cost would be enormous and the product is not demonstrated as satisfactory for

exclusive use in meeting rubber needs. Moreover, it has been estimated that considerable time would be required to construct the physical facilities necessary for producing a volume of synthetic rubber equivalent to present consumption of crude rubber.

According to those who can speak authoritatively for the rubber industry, that would involve expensive change-over of rubber manufacturing machinery and reallocation of machinery when cheap natural rubber again became available. It is known that Germany and Russia currently are making frantic efforts to secure natural rubber, which indicates that synthetic rubber cannot be used satisfactorily for all purposes.

We believe that a comprehensive, flexible plan providing for use of available sources of both crude and synthetic rubber is preferable. As a timely first step, some provisions in H. R. 5030 are admirably suited to such a plan.

H. R. 5030 does not contemplate the production of rubber in quantity sufficient to meet our needs but does provide for a nucleus planting, expandable in accordance with current forecasts of later needs. The expansion or curtailment would appear to be subject to control through governmental action based on the current forecasts and need not result in speculative planting or development of private vested interests. The activity could be discontinued when it became apparent that the reserve supply being created was no longer required to insure adequate supplies of rubber.

However, this Department believes the wisdom of employing the corporate device in the performance of the task here involved is questionable; that greater efficiency in costs and operations would result from legislation which would grant the necessary powers to the Secretary to permit him to carry out these added functions within the existing framework of the Department and to devote present personnel and facilities to the objectives of the program to the greatest extent that this may be found feasible.

There is therefore attached a draft of a proposed substitute bill containing the revisions which we suggest. These changes are designed, as the foregoing points out in part, to afford greater administrative flexibility, to reduce the possibility of administrative complications, and to facilitate efficient utilization of existing agencies of this Department, which are already equipped to contribute toward the successful prosecution of the phase of the defense program herein contemplated. The importance of the latter consideration is emphasized by the fact that expert opinion and a comparison of current prices of natural crude rubber from the East with those of the guayule product lead to the conclusion that substantial losses may result when sources of supply in tropical regions are available. The assumption of this risk must be justified by the present war emergency.

We wish to point out that the nature of the crop season for guayule rubber makes prompt action necessary if nurseries are to be planted next March. Land must be acquired and prepared and overhead irrigation facilities and special planting equipment constructed. Failure to complete arrangements for the operation of the nurseries by next March or April may mean the loss of an entire season.

The Bureau of the Budget advises that there would be no objection to the presentation of this report for the consideration of the committee.

Sincerely yours,

PAUL H. APPLEBY, *Under Secretary.*

○

Union Calendar No. 600

77TH CONGRESS
2^D SESSION

S. 2152

[Report No. 1685]

IN THE HOUSE OF REPRESENTATIVES

JANUARY 19, 1942

Referred to the Committee on Agriculture

JANUARY 27, 1942

Reported with amendments, committed to the Committee of the Whole House
on the state of the Union, and ordered to be printed

[Omit the part struck through and insert the part printed in italic]

AN ACT

To provide for the planting of guayule and other rubber-bearing
plants in order to make available a source of crude rubber
for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, ~~or by condemnation,~~ the right to operate under proc-
7 esses or patents relating to the growing and harvesting of
8 guayule or the extraction of rubber therefrom, and such prop-
9 erties, processes, records, and data as are necessary to such

1 operation, including but not limited to any such rights owned
 2 or controlled by the Intercontinental Rubber Company, or any
 3 of its subsidiaries, and all equipment, materials, structures,
 4 factories, real property, seed, seedlings, growing shrub, and
 5 other facilities, patents and processes of the Intercontinental
 6 Rubber Company, or any of its subsidiaries, located in
 7 California, and for such rights, properties, and facilities of
 8 the Intercontinental Rubber Company or any of its sub-
 9 sidiaries, the Secretary is authorized to pay not to exceed
 10 \$2,000,000;

11 (2) To plant, or contract for the planting of, not in ex-
 12 cess of seventy-five thousand acres of guayule in areas in the
 13 ~~Western Hemisphere~~ United States where the best growth
 14 and yields may be expected in order to maintain a nucleus
 15 planting of guayule to serve as a domestic source of crude
 16 rubber as well as of planting material for use in further ex-
 17 panding guayule planting to meet emergency needs of the
 18 United States for crude rubber; to establish and maintain
 19 nurseries to provide seedlings for field plants; and to purchase
 20 necessary equipment, ~~and~~ facilities, and land for nurseries;

21 (3) To acquire by purchase, lease, or other agreement,
 22 ~~or by condemnation~~ for not exceeding ten years, rights to land
 23 for the purpose of making plantings of guayule; to make
 24 surveys, directly or through appropriate Government agencies,
 25 of areas in the ~~Western Hemisphere~~ United States where

1 guayule might be grown; and to establish and maintain
2 records indicating areas to which guayule cultivation could
3 be extended for emergency production;

4 (4) To construct or operate, or to contract for the oper-
5 ation of, factories for the extraction of rubber from guayule;
6 and to purchase, operate, and maintain equipment for the
7 harvesting, storing, transporting, and complete processing of
8 guayule, *and to purchase land as sites for processing plants*;

9 (5) To conduct studies, in which he may cooperate with
10 any other public or private agency, designed to increase the
11 yield of guayule by breeding or by selection, and to improve
12 planting methods; to make surveys of areas suitable for cul-
13 tivating guayule; to make experimental plantings; and to
14 conduct agronomic tests;

15 (6) To conduct tests, in which he may cooperate with
16 any other public or private agency, to determine the qualities
17 of rubber obtained from guayule and to determine the
18 most favorable methods of compounding and using guayule
19 in rubber manufacturing processes;

20 (7) To improve methods of processing guayule shrubs
21 and rubber and to obtain and hold patents on such new
22 processes;

23 (8) To sell guayule or rubber processed from guayule
24 and to use funds so obtained in replanting and maintaining

1 an area of seventy-five thousand acres of guayule inside the
2 ~~Western Hemisphere~~ *United States*; and

3 (9) To exercise with respect to rubber-bearing plants
4 other than guayule the same powers as are granted in the
5 foregoing provisions of this section with respect to guayule.

6 SEC. 2. (a) The Secretary is authorized to appoint such
7 employees, ~~including citizens of countries in the Western~~
8 ~~Hemisphere~~, as may be necessary for carrying out the pro-
9 visions of this Act. Such appointments may be made with-
10 out regard to the provisions of the civil-service laws, and the
11 compensation of the persons so appointed may be fixed with-
12 out regard to the provisions of the Classification Act of 1923,
13 as amended. All appointments so made by the Secretary
14 shall be made only on the basis of merit and efficiency.

15 ~~(b) Notwithstanding the provisions of any other law~~
16 ~~governing the expenditure of public funds, the General Ac-~~
17 ~~counting Office shall not disallow credit for, nor withhold~~
18 ~~funds because of, any expenditure which the Secretary shall~~
19 ~~determine to have been necessary to carry out the provisions~~
20 ~~of this Act.~~

21 ~~(e) (b)~~ The Secretary may delegate any of the powers
22 and duties conferred on him by this Act to any agency or
23 bureau of the Department of Agriculture.

24 ~~(d) (c)~~ The Secretary, with the consent of any board,
25 commission, independent establishment, corporation, or

1 executive department of the Government, including any field
2 service thereof, may avail himself of the use of information,
3 services, facilities, officers and employees thereof, in carry-
4 ing out the provisions of this Act.

5 ~~(e)~~ (d) The Secretary may allot to bureaus and offices
6 of the Department of Agriculture, or may transfer to such
7 other agencies of the State and Federal Governments as may
8 be requested by him to assist in carrying out this Act, any
9 funds made available to him under this Act.

10 SEC. 3. There are authorized to be appropriated such
11 amounts as may be necessary to carry out the provisions
12 of this Act. Any amounts so appropriated, and any funds
13 received by the Secretary under this Act, shall remain per-
14 manently available for the purposes of this Act without
15 regard to the provisions of any other laws relating to the
16 availability and disposition of appropriated funds and the
17 disposition of funds collected by officers or agencies of the
18 United States. *Pending the making of the initial appropria-*
19 *tion to carry out this Act, the Secretary is authorized to use,*
20 *for purchases or operations that he finds necessary under*
21 *this Act before the making of such appropriation, the funds*
22 *available to any agency or agencies of the Department of*
23 *Agriculture, and any such funds so used shall be reimbursed*
24 *from the appropriation made to carry out this Act.*

Amend the title so as to read: "An Act to provide for

the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.”

Passed the Senate January 15, 1942.

Attest:

EDWIN A. HALSEY,
Secretary.

77TH CONGRESS
2d Session

S. 2152

[Report No. 1685]

AN ACT

To provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

JANUARY 10, 1942

Referred to the Committee on Agriculture

JANUARY 27, 1942

Reported with amendments, committed to the Committee of the Whole House on the state of the Union, and ordered to be printed

he is

CONSIDERATION OF S. 2152

FEBRUARY 2, 1942.—Referred to the House Calendar and ordered to be printed

Mr. SABATH, from the Committee on Rules, submitted the following

REPORT

[To accompany H. Res. 427]

The Committee on Rules, having had under consideration House Resolution 427, report the same to the House with the recommendation that the resolution do pass.

○

11 culture, the bill shall be read for amendment under the fi
12 minute rule. At the conclusion of such consideration,

1 Committee shall rise and report the bill to the House with
 2 such amendments as may have been adopted and the previous
 3 question shall be considered as ordered on the bill and
 4 amendments thereto to final passage without intervening
 5 motion except one motion to recommit.

77TH CONGRESS
2d Session**H. RES. 427**

[Report No. 1734]

RESOLUTION

For the consideration of S. 2152, An Act to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

By Mr. SARATH

FEBRUARY 2, 1942

Referred to the House Calendar and ordered to be
 printed



Mr. DISNEY. The payment of the first premium, in the opinion of the Veterans' Administration, eliminates many difficulties that have arisen on World War policies since World War No. 1, and that is one of the objects of the legislation.

Mr. DOUGHTON. The gentleman is absolutely correct. This bill has the approval of the Veterans' Administration. There is a letter from General Hines in the report approving the legislation. In fact, the Veterans' Administration requested it.

The SPEAKER. Is there objection to the request of the gentleman from North Carolina?

There was no objection.

The bill was ordered to be read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

THE UNITED STATES PENITENTIARY AT ATLANTA, GA.

Mr. RABAUT. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Michigan?

There was no objection.

Mr. RABAUT. Mr. Speaker, last week it was my privilege to go to the district of our good friend and colleague, BOB RAMSPECK. Accompanying Attorney General Francis Biddle and James V. Bennett, Director of the Bureau of Prisons, I visited the United States penitentiary at Atlanta, Ga. We were the guests of Warden Joseph W. Sanford on the occasion of the presentation of an award of merit to the inmates.

This award was in recognition of their voluntary action increasing their own hours of labor from 36 to 57 hours a week. They produce some 70 different articles of canvas and duck, including tents, cots, shoes, and shell covers, for our armed services. During December alone they turned out nearly 1,000,000 pounds of these goods. Their production has doubled, in spite of the fact that the prison population has been greatly reduced.

If you want to see expressions of devotion to America, I bid you see the slogans that hang from the walls and in the courts of the Federal penal institution at Atlanta. The morale of the prison has never been higher, and the one ambition of the inmates is to give Hitler a headache.

It was in deference to this spirit and loyalty to the war effort that the Director of the Bureau of Prisons, the Attorney General, and the chairman of their appropriations subcommittee made a visit to their institution. Their statement could be summed up in a simple sentence: "We have forfeited our liberty, and we know its value, but we are still in an American institution."

[Here the gavel fell.]

Mr. RABAUT. Mr. Speaker, I ask unanimous consent to insert in the Ap-

pendix of the RECORD the speech of the Attorney General made on this occasion.

The SPEAKER. Is there objection to the request of the gentleman from Michigan?

There was no objection.

LIFE INSURANCE FOR MEN IN THE ARMED SERVICES

Mr. H. CARL ANDERSEN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Minnesota?

There was no objection.

Mr. H. CARL ANDERSEN. Mr. Speaker, after hearing the discussion in relation to life insurance for the men in our armed services, I want to say that I was much pleased yesterday to note an Associated Press article to the effect that the other body is becoming very much interested in the proposal that I advanced to the Congress just last Monday to give to each and every man in the service an automatic \$5,000 life-insurance policy to be paid for by the Government of the United States. I wish, however, at this point for the RECORD to show that such a measure, regardless of the fact that the press dispatch stated differently, has already been introduced as stated here after considerable work on my part following a conversation with General Hines, of the Veterans' Administration, last November in committee.

GOVERNMENT WORKERS

Mr. WILSON. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Indiana?

There was no objection.

Mr. WILSON. Mr. Speaker, I had a letter in my mail Monday morning from one of the lady Government workers, and she was terribly hurt because I had, apparently, as she thought, discriminated against the girls. Now, the accusation she made was against the male workers. The particular male workers to whom she referred in my opinion are the most efficient employees of our entire system. She spelled the word "male" m-a-i-l. The only "mail" workers in our Government are postal employees. I know that was not just a typographical error, because she had erased the word and respelled it. There were also many other errors in the letter.

[Here the gavel fell.]

EXTENSION OF REMARKS

Mr. STEVENSON. Mr. Speaker, I ask unanimous consent to extend my remarks and include an editorial from the Wisconsin State Journal, of Madison, Wis., entitled "Grab Bag."

The SPEAKER. Is there objection?

There was no objection.

Mr. LANE. Mr. Speaker, I ask unanimous consent to extend my remarks and include a resolution adopted by the House of Representatives of the Commonwealth of Massachusetts.

The SPEAKER. Is there objection? There was no objection.

READING OF GEORGE WASHINGTON'S FAREWELL ADDRESS

Mr. McCORMACK. Mr. Speaker, I ask unanimous consent that on February 23, after the reading of the Journal, the Speaker designate a Member of the House to read Washington's Farewell Address.

The SPEAKER. Is there objection?

There was no objection.

The SPEAKER. In accordance with the order just made the Chair designates the gentleman from Nebraska [Mr. STEFAN] to read George Washington's Farewell Address on February 23, 1942.

EXTENSION OF REMARKS

Mr. ANGELL. Mr. Speaker, I ask unanimous consent to extend my remarks in the RECORD and include a short resolution.

The SPEAKER. Is there objection?

There was no objection.

MESSAGE FROM THE SENATE

A message from the Senate, by Mr. Baldrige, one of its clerks, announced that the Senate had passed without amendment, a joint resolution of the House of the following title:

H. J. Res. 276. Joint resolution to authorize the President of the United States to render financial aid to China, and for other purposes.

The message also announced that the Senate agrees to the amendment of the House to a bill of the Senate of the following title:

S. 1945. An act to authorize the Commissioners of the District of Columbia to acquire, operate, and regulate public off-street parking facilities, and for other purposes.

The message also announced that the Senate agrees to the report of the committee of conference on the disagreeing votes of the two Houses on the amendments of the Senate to the bill (H. R. 6460) entitled "An act making appropriations for the Navy Department and the naval service for the fiscal year ending June 30, 1943, and additional appropriations therefor for the fiscal year ending June 30, 1942, and for other purposes."

The message also announced that the Senate agrees to the amendments of the House to the amendments of the Senate numbered 5 and 27 to the said bill.

GUAYULE RUBBER

Mr. SABATH. Mr. Speaker, I call up House Resolution 427, which I send to the desk and ask to have read.

The Clerk read as follows:

Resolved, That upon the adoption of this resolution it shall be in order to move that the House resolve itself into the Committee of the Whole House on the state of the Union for the consideration of the act (S. 2152) to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses. That after general debate, which shall be confined to the bill and continue not to exceed 1 hour, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Agriculture, the bill shall be read for amendment under the 5-minute rule. At the

conclusion of such consideration, the Committee shall rise and report the bill to the House with such amendments as may have been adopted and the previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit.

Mr. SABATH. Mr. Speaker, in accordance with the policy of the Committee on Rules, I am calling up a special rule making in order Senate bill 2152, which provides for the acquisition of some land and some seed, also a patent, owned by a certain rubber company. The rule provides for 1 hour of general debate, after which the bill will be taken up for amendment under the 5-minute rule. This bill has been recommended by the Assistant Secretary of Agriculture and several other gentlemen in that department. It provides, as I said, for the acquisition of about 23,000 pounds of seeds which have been grown by this Intercontinental Rubber Co., that has been experimenting with this plant for about 30 years in the United States, and from the report and the information that I have obtained they have not been very successful. Nevertheless, it is believed that it might be possible for the Government to experiment with this seed and this plant, and that it may be possible after 4 or 5 years that we may get some rubber out of these plants.

I fully appreciate the need for rubber, but I hope that long before we will be able to extract rubber from these plants, that Hitler and Japan will have been defeated, and that we will then be able to obtain all of the rubber that we actually need from other sources in this country. Some gentlemen feel that this would be an insurance, that no one can tell what may happen, and even though it might take 4 or 5 years to obtain any amount of rubber out of these plants, still it might be helpful. Some feel that we should, as a matter of policy, expend the sum of money provided for and try to develop these plants in the United States. The plant grows wild and contains about 20 percent of rubber when properly treated. This company has been successful in growing it in Mexico, in cultivating it, and has obtained rubber out of these wild plants. Many people are of the opinion that we can grow the plant here. The company has been at it for about 30 years, and they have now around about five or six hundred acres of plants in a section of California. The gentleman from California representing this district thinks that it will be successful, and that good results will be obtained.

Personally outside of the seed and patents and what this company has, and the production out of the plants to date, and a thousand acres of land which they have, the company originally asked for their patent, land, and seed about \$3,000,000. I am informed that the chairman of the subcommittee of the Committee on Agriculture, the gentleman from Virginia [Mr. FLANNAGAN], has succeeded in having them to agree to accept about \$2,000,000. The committee, however, wisely provided in the bill that no more than \$2,000,000 should be paid to

this company, but it then authorizes the Department of Agriculture or the Forestry Department to lease up to 75,000 acres of land and to cultivate this guayule plant. I am giving you the information that came to me. I have talked to some of these gentlemen in the Department, I presume they know much more about it than any one of us here. They think that efforts should be made upon the part of the Government to acquire this patent and the seed and the property and endeavor to develop the growth of this rubber-bearing plant. I myself believe, as I have said, and I hope to God, that long before any rubber can be obtained from this plant, the war will be over and we will be free to obtain all of the rubber and other necessary things that we need for the production of everything and anything required in the United States.

Mr. RANKIN of Mississippi. Mr. Speaker, will the gentleman yield?

Mr. SABATH. I yield to the gentleman from Mississippi.

Mr. RANKIN of Mississippi. I notice in the Washington Post this morning that a grand jury in the city of New York is investigating the charge that the Standard Oil Co. of New Jersey conspired with a certain German concern which manufactures synthetic rubber to prevent the development of that process in the United States, and thereby to prevent the building up of a supply of synthetic rubber in the United States. Does not the gentleman think that is a question which the Congress should investigate?

If any concern is guilty of conspiring with the agent or citizen of a foreign government, especially an enemy government, to prevent the building up or development of a process for the manufacture of synthetic rubber in this country, we ought not to depend on a grand jury in New York City to investigate it, but the Congress should investigate it and find out the facts and see that the persons who are guilty, if any, are properly punished, and break up the guilty monopoly.

Mr. SABATH. I fully agree with the gentleman, but I fear it may take altogether too long for the House or Congress to make the investigation, and if these gentlemen are already investigating it and the grand jury has already been impaneled and evidence is being presented, I think we should encourage them to proceed with the investigation. If what the gentleman says is true, and if the charges are proved, they should be convicted and sent to the penitentiary without delay. What applies in this instance should apply to every other case where any one of these large industrial corporations retards the production of needed materials especially at this time.

Mr. RANKIN of Mississippi. Will the gentleman yield further?

Mr. SABATH. I yield.

Mr. RANKIN of Mississippi. Our investigation would not interfere with the grand jury in the least. Their investigation is secret. Even if they convict the last one of them and send them to the penitentiary, that will not produce syn-

thetic rubber in this country. So, I submit it is the business of Congress to investigate this, go to the bottom of it, and to break up any attempt to prevent the manufacture in this country of essential war materials, and especially rubber.

Mr. SABATH. I will say to the gentleman that we have before our committee many resolutions to investigate. I am of the opinion that some of those resolutions should be favorably considered and that the House should investigate many of the things which are complained of. But unfortunately the House has been opposed to the adoption of those investigating resolutions and the appointing of those committees. Personally I assure the gentleman if he will introduce such a resolution it will receive due and proper consideration. On the other hand, may I say to the gentleman from Mississippi I have been informed that there is no such great shortage of rubber in the United States.

What applies to rubber, I am told, applies to sugar, that there is no such shortage of sugar in the United States, but certain people and companies and corporations in the United States took advantage of the publicity that is sometimes given to the fact that there is a shortage. I feel that there is not; that it is being hoarded, that it is being controlled by a few for the purpose of mulcting the American people. If that is so, I think that should be investigated, and the whole sugar industry should be investigated.

Mr. RANKIN of Mississippi. Will the gentleman yield further?

Mr. SABATH. I yield.

Mr. RANKIN of Mississippi. If there is a shortage of sugar Congress is largely responsible for it, because we have cut down the production of sugar in certain States by law.

Mr. SABATH. Well, not last year, because the sugar growers have been given the right to plant all the acreage necessary.

Mr. RANKIN of Mississippi. On this question of the production of synthetic rubber, I submit, if the statement made in the Washington Post this morning is correct, the Congress ought not to merely rely on a grand-jury investigation, but we should go to the bottom of it ourselves and break up these vast monopolies that are conspiring with foreign agents to cripple our war effort.

Mr. SABATH. I have stated to the gentleman if he or any other Member will introduce such a resolution the Committee on Rules will only be too willing to give due consideration to such resolution, not only to investigate this particular case of abuse, but any other.

Mr. DITTER. Mr. Speaker, will the gentleman yield?

Mr. SABATH. I yield.

Mr. DITTER. Am I to understand that the gentleman reflects unfavorably upon the credibility of Mr. Henderson in connection with the regulations that he has imposed upon the people? In other words, as I understand it, the matter of these shortages and sugar rationing is the result of Mr. Leon Henderson's arbitrary rulings and positive commands. I

am surprised at the gentleman from Illinois taking exception to that.

Mr. SABATH. I do not. I know he means to do the right thing and he desires to protect the Nation in the days and months to come from having a shortage of sugar.

Mr. DITTER. You mean that he does not know anything about it?

Mr. SABATH. No.

Mr. DITTER. That he has not sufficient information at hand and, therefore, the rulings have been predicated on ignorance rather than an understanding of the facts?

Mr. SABATH. Well, you or no one can charge Mr. Leon Henderson with ignorance.

Mr. DITTER. I rather assumed the gentleman was doing that.

Mr. SABATH. On the contrary, I think he is a very capable gentleman, but I may say I do not know when he issued any restriction, whether or not it was before the Department of State made the treaty or the compact with Cuba, whereby the United States is to obtain the entire output of Cuban sugar at the prevailing price of \$2.60 or \$2.65.

This together with the additional sugar that will be produced in this country and the large quantity on hand should prevent any real shortage. At the present time, however, certain large concerns are attempting to lay up a large quantity in reserve and that creates the condition Mr. Henderson is trying to prevent.

Mr. DITTER. Mr. Speaker, will the gentleman yield further?

Mr. SABATH. I must yield to the gentleman from Ohio.

Mr. DITTER. Will not the gentleman allow me to complete the interrogation I started?

Mr. SABATH. I yield for a question, but make it a question, please.

Mr. DITTER. My question is this: Am I now to assume that the gentleman exonerates Henderson and places the blame over on the Department of State?

Mr. SABATH. No; I want to give the Department of State credit and Henderson does not need any apology. It cannot be denied by anyone that in the absence of a treaty with Cuba we would be confronted with a real sugar shortage. The Department of State is to be congratulated in making the treaty which now permits us to obtain the whole crop of that country at such a low price.

Mr. DITTER. The women of the country are to blame; is that it?

Mr. SABATH. Yes; I think they became alarmed a little while ago.

Mr. DITTER. I categorically deny that assertion.

Mr. SABATH. I suppose the gentleman from Pennsylvania buys the sugar in his household.

Mr. DITTER. I believe the women now are the best providers; I believe they look after a family's needs better than the men.

Mr. SABATH. At home, yes; but they are also oversensitive as to having enough sweets for husband when he comes home.

Mr. CLEVINGER. Mr. Speaker, will the gentleman yield?

Mr. SABATH. I yield.

Mr. CLEVINGER. Is the gentleman aware that the Agricultural Department, the A. A. A., cut production of sugar 17 percent in both the beet and cane areas in continental United States in 1941?

Mr. SABATH. But not for 1942.

Mr. CLEVINGER. My farmers were cut out of 17 percent of their acreage.

Mr. SABATH. They did not want to have a surplus. They wanted the beet-sugar people as well as the cane-sugar people to get a fair price. If there had been overproduction, the price would not be fair to them and they could not grow beets or cane in the future, but since December 7, as the gentleman knows, conditions have changed. We are now at war.

Mr. SWEENEY. Mr. Speaker, will the gentleman yield?

Mr. SABATH. I yield.

Mr. SWEENEY. Not so long ago Mr. William O'Neil, of the General Tire & Rubber Co., a man who knows rubber, stated to the Cleveland Advertising Club that there was no shortage of rubber in this country. The same day Henderson said there was only a 3 months' supply. Can the gentleman satisfy the House on these contradictory statements, so we may know whether there is a real shortage of rubber or not?

Mr. SABATH. I wish I could reconcile all the differences of opinions and different views of different gentlemen, but, unfortunately, I cannot. I may say, however, that I have promised the chairman of a subcommittee of the Committee on Agriculture which reported this bill that I would give him some of my time to explain the bill under the rule. This gentleman has held many days of hearings. He knows the subject far better than I, and I am not going to deny the House the privilege and opportunity of being informed thoroughly by him.

Mr. NORRELL. Mr. Speaker, will the gentleman yield?

Mr. SABATH. I yield.

Mr. NORRELL. While we are on the subject of rationing, I wonder if the gentleman can tell us why it is necessary to prohibit the purchase of cotton duck, for instance, on the theory that there is a scarcity when the Government itself owns 12,000,000 bales of cotton?

Mr. SABATH. I do not know unless it is for the purpose of protecting the cotton the Government has and also protecting the cotton growers so that a great deal of this cotton would not be put on the market to break the price.

Mr. CRAWFORD. Mr. Speaker, will the gentleman yield for a question on the bill?

Mr. SABATH. I yield.

Mr. CRAWFORD. Does the gentleman recommend approval of this bill on the basis that the acquisition of this property and these processes and experimental work, seed, land, and so forth, will serve as an insurance policy against a greater shortage of rubber in the future?

Mr. SABATH. That is what is claimed for the bill.

Mr. CRAWFORD. Does the gentleman recommend the bill?

Mr. SABATH. That is the claim made by those who reported the bill and who

advocated it. I am only doing my duty in bringing before the House a bill that has been reported by a standing legislative committee of the House. As I stated at the beginning, the Rules Committee feels the House should not be denied the privilege and the right of passing its judgment upon legislation reported by duly authorized legislative committees.

Mr. CRAWFORD. I am anxious to know if the gentleman believes that the showing was sufficient to warrant the passage of the bill and if the gentleman himself is in favor of the bill.

Mr. SABATH. I have not definitely made up my mind about it. I feel we should protect ourselves, but whether we shall do so by this bill I do not know. These people, the Intercontinental Rubber Co., have been trying to develop this plan for 20 years but have failed in the United States. They have a plant in Mexico where they have been successful and are making money. They do not want to sell that. They want to sell us that which is here. Perhaps they feel that the Government is in a better position to spend the money for further trials and experimentation than they are.

Mr. MURDOCK. Will the gentleman yield?

Mr. SABATH. I yield to the gentleman from Arizona.

Mr. MURDOCK. I take it that the gentleman is not concerned with this particular company in California so much as he is in finding out whether our great natural resources of the West can be further developed in providing this vitally essential, home-produced, natural rubber; is that not true?

Mr. SABATH. Correct, but unfortunately they have not been successful in the West with the growth of this guayule.

Mr. MURDOCK. It may be that they have not been financially successful in this venture, but they have shown that rubber can be thus produced.

Mr. PACE. Will the gentleman yield?

Mr. SABATH. I yield to the gentleman from Georgia.

Mr. PACE. The gentleman has suggested that they have not been successful. Does not the gentleman want to qualify that by saying they have not been successful in producing guayule rubber to compete with native rubber selling at 2, 3, 4, or 5 cents a pound? They have been successful in producing the rubber, but it costs more and everybody knows it costs more. They have not been unsuccessful, however.

Mr. SABATH. I am glad the gentleman calls that to my attention. That has been shown and testified to before our committee, and that is the information I have.

Mr. CRAWFORD. Will the gentleman yield?

Mr. SABATH. I have not the time. I wish I could.

Mr. Speaker, I now yield 4 minutes to the gentleman from Georgia [Mr. Cox].

Mr. COX. Mr. Speaker, I would like to prefix my statement on the pending resolution with a brief reference to another matter. I got my worry bird this morning. It is good humor, but there is

more to it than that. It evidences a very unfavorable public reaction to the action taken by the House a few days ago in reference to retirement legislation affecting Members of Congress. I think the Congress made a dreadful mistake in the adoption of that bill. It puts us at a disadvantage in years to come in the consideration of all retirement legislation. I sincerely believe—and it is not because I wish to make favor with the public but because of a deep conviction that I have—the law is against the public interest and should be repealed.

With reference to the subject matter involved in the bill which the pending resolution is intended to make in order, the Committee on Agriculture appearing before the Rules Committee asking for a rule made out a very, very poor case. However, in spite of the weakness of the case that it presented, the Rules Committee did just what I think any and all of you would have done under similar circumstances. It reported the matter for your consideration.

It came to us in the name of national defense, and that is the one object that those sponsoring the bill have in mind. The gentleman from California [Mr. ANDERSON] probably knows more about this proposition than any Member of the House. I would have none of you think he is endeavoring in the interests of constituents of his to sell the Government a gold brick. The resolution as originally drafted provided for the acquisition of this property through condemnation proceedings. The committee carried on negotiations and finally came to an agreement with the owners of the property whereby they would part with title for a consideration of \$2,000,000.

If the House has the fear that that is excessive, that it is more than the property is worth—and, frankly, I have a feeling that it is probably more than the property is worth—then you should strike down the committee amendment to the bill. The property is probably worth no more than a quarter of a million dollars to the owner. It may be worth a great deal more than that to the Government. As I say, if you have any fear about that, then strike down the committee amendment to the bill. If you adopt that procedure and the Government acquires ownership of the property, it will be as the result of condemnation proceedings. However, I do have the thought that the committee can justify its recommendation for \$2,000,000 upon the basis that it is saving the Government perhaps in the neighborhood of \$2,000,000; but I do invite the Members of the House to give careful consideration to the statement of the gentleman from California [Mr. ANDERSON], and I vouch for his deep sincerity and, of course, his fine patriotism. He is not undertaking to pan off anything that is worthless, he is not trying to sell a gold brick to the Government.

[Here the gavel fell.]

Mr. SABATH. Mr. Speaker, I yield such time as he may desire to the gentleman from Kansas [Mr. HOUSTON].

Mr. HOUSTON. Mr. Speaker, I ask unanimous consent to extend my own remarks in the Record and to include a brief editorial by William Allen White.

The SPEAKER. Is there objection to the request of the gentleman from Kansas [Mr. HOUSTON]?

There was no objection.

Mr. SABATH. Mr. Speaker, I yield 30 minutes to the gentleman from Michigan [Mr. MICHENER].

Mr. MICHENER. Mr. Speaker, the distinguished gentleman from Georgia [Mr. Cox], who has just preceded me, tells us that he has received through the mail a "coochie" bird or a "worry" bird, or whatever he calls it. He indicates that this is a humorous reminder of the action of the House some time ago in passing an amendment to the Civil Service Retirement Act, the purpose of which is to make it possible for Members of Congress, the President, the Vice President, and other elective officers to receive retirement pay.

Like the gentleman from Georgia, I have received numerous reminders, but mine have been in the way of messages, resolutions, and editorials criticizing this untimely, unwarranted, and unjustified action by the Congress. There is nothing humorous about any of these messages which I have received. Indeed, the picture is a somber one, and it is most regrettable that this amendment was passed through the House as a part of the Unanimous Consent Calendar without any debate or consideration by the House.

I quite agree with my friend as to his appraisal of the measure. On January 30, in the debate, I expressed my view about this matter. Several Members have introduced bills to undo that which was hastily, if not unwittingly, done when the bill passed the House on December 1, 1941. I am asking the Civil Service Committee to give attention to these bills.

Mr. Speaker, there is one Member in the House who knows more about the Anderson bill, which this rule makes in order, than all the rest of us put together. He has been talking about the necessity of protecting our rubber for at least 2 years to my personal knowledge. I am therefore not going to muddy the waters or attempt to explain a bill I know little about. This gentleman will give us a comprehensive picture supported by the facts. I now yield 15 minutes to the author of the bill, the gentleman from California [Mr. ANDERSON].

Mr. ANDERSON of California. Mr. Speaker, it is extremely gratifying to me to find the guayule rubber project finally bearing fruit, or should I say bearing rubber. The resolution under consideration makes in order the bill S. 2152, to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

Mr. Speaker, I want to make my position on this subject absolutely clear to every Member of the House. I would still be urging the adoption of this legisla-

tion if there was no war on and if our supply of rubber from the East Indies had not been threatened. In my opinion, it is extremely unwise for the United States to continue to ignore the possibility of producing a certain percentage of the rubber it needs within its own borders. We are completely at the mercy of an international rubber cartel, a rubber monopoly, and in spite of the cost of production of imported rubber this monopoly sets the price and we pay it.

I call to your attention the fact that one reason why this project has not developed further in this country up to this date is the price of rubber. At one stage in the development program this company had 8,000 acres of guayule planted in the southern county of my district. The price of rubber dropped to 3 cents a pound, and that entire investment was lost. However, the company and the Department of Agriculture's experts state that at the present price of rubber this product can successfully be grown in the United States, and I therefore see no reason why we should not get on with it as soon as possible.

We know that rubber is one of our most critical defense needs. We are not sure that we are going to continue to get a supply from the East Indies. I think most of us are aware of the fact that 97 percent of the rubber consumed in this country is imported from British Malaya, now entirely in Japanese hands, and from the Dutch East Indies.

In spite of all reports to the contrary, I cannot share the beautiful optimism of those who say that we are not going to be kicked out of the southwest Pacific, and our rubber is going to continue to arrive. There is no Member of the House that I give way to in my desire to settle this issue in the southwest Pacific just as soon as possible and get back our natural supply of rubber as soon as possible, but at the same time I think that as long as this guayule plan presents an avenue of securing an additional supply of natural rubber we should take advantage of it.

I think a brief history of the guayule development in this country is well in order. I call your attention to an extension of remarks I placed in the Record that can be found on page 387 of the Appendix. Those remarks contained a letter from one of the acknowledged leading international rubber experts, who is now a professor of chemistry at the Massachusetts Institute of Technology.

I should also like to call to your attention a brief review of the guayule situation—a Tariff Commission report appearing on page 50 of the hearings before the Committee on Agriculture with respect to this bill.

Naturally there will be some question as to the cost of this program over and above the amount it is here contemplated we should pay to the Intercontinental Rubber Co. for their tangible and intangible assets in the United States. May I call your attention to the very excellent committee report that accompanied this

bill to the floor of the House. On page 3, at the bottom of the second paragraph, the committee report contains this statement:

From its investigation the committee is able to assure the House of Representatives that expenditures under this authorization would be insignificant as compared with the cost of any other rubber or rubber substitute development.

With further reference to the cost, may I call your attention to a statement by Dr. Brandes, Chief of the Report Division of the Department of Agriculture, appearing on page 24 of the hearings. In answer to a question propounded by the gentleman from Virginia [Mr. FLANNAGAN], Dr. Brandes said this:

I believe that this whole program could be effectuated at practically no cost to the Government if the present price of rubber is maintained.

These are interesting statements that we should retain when further discussion on this bill is in order.

It seems to me that in considering this proposed legislation there are three or four main questions that must be resolved. First of all, do we need rubber? Those of you who are going to be running around on retreaded tires in the near future because you cannot buy new ones will be the first to agree that we do need more rubber. Those of us who share my belief that we are in serious danger of losing our supply of rubber from the East Indies also believe that we need rubber. The rubber experts tell us so. All right, then; we will say that that question is resolved.

Second, and most important, probably, is the question, Will guayule produce rubber? In appearing before the Committee on Agriculture in presenting the case for this bill, and in all the statements I have made to the House prior to this time, I have tried always to err, if possible, on the side of conservatism. I am not giving you my considered judgment in saying that I think this matter is worthy of consideration, but I do give you the considered judgment of various experts in departments in the Government.

In answer to the question, Will guayule produce rubber? I should like to say that the Department of Agriculture says "Yes," the Tariff Commission of the United States says "Yes," and the Department of Commerce through its Bureau of Standards says definitely "Yes." The Big Four, the major rubber companies—that is, the United States Tire & Rubber Co., Firestone, Goodyear, and Goodrich—have all used guayule in different quantities, and each of these companies says that guayule produces good rubber.

Finally, the leading rubber experts with whom I have had correspondence and contacts during the time this bill was in process of being brought to this particular point all agree that guayule will produce rubber.

All right, then, we get down to the question of whether or not this is essential to national defense. I think that it is. I do not like to bring in a bill here that I

have had pending in the House for 8 months and call it up simply because it is essential to national defense. I think it is essential for many other reasons, but now it has a further quality, and that is it is essential also for national defense.

In this regard, may I call your attention to a letter from the Navy Department on page 51 of the hearings? You will find embodied in the hearings letters from several Government departments, letters from various major rubber companies of the United States, but I think most important of all is this letter from the United States Navy Department, and I would like to read excerpts from it:

The Navy Department has made certain tests on both Mexican and domestic guayule. Tests on domestic material were made on both the resinous and deresined condition, but tests on the Mexican guayule were made only on the resinous condition. The technical information obtained may be summarized briefly by saying that the domestic deresined guayule may be substituted for natural Hevea rubber without sacrificing the physical or chemical qualities of the manufactured article. Resinous guayule is not suitable as a direct substitute for Hevea rubber. It is, however, used commercially in the making of rubber cement or rubber articles where a tacky surface is desired.

Further along the letter says this:

The process of extracting the resin from guayule costs approximately 1 to 3 cents per pound, depending upon the type and size of extraction equipment. This in turn depends upon the amount produced. As an over-all estimate guayule rubber will probably cost no less than 25 cents per pound for some time to come if operations are started in the near future.

The Navy is vitally interested in the insurment of an adequate supply of rubber for its essential uses. While the plan presented does not offer an immediate supply if the supply of Hevea rubber should be cut off in the near future, it nevertheless does offer a fairly definite basis for a supply of rubber which would be available within a reasonable length of time.

Consideration should also be given to the fact that all of the money expended in the production of guayule rubber will remain in the United States in place of the large sums which now flow from this country for the procurement of crude rubber.

They go on then to urge immediate enactment of this legislation.

In addition to the Navy Department's letter as to whether this is essential for national defense or not, I should like to say that this has already been recommended by the War Department, by the R. F. C., by Mr. Jesse Jones in person before the House Committee on Military Affairs, by the major rubber companies to which I have referred, and by the Tariff Commission. So I think that leaves no question about it. It certainly leaves no question in my mind as to whether or not this is essential for national defense.

We all know that no such measure as this would be before the House for consideration unless it had been approved by the various departments of the Government involved. All of the Government departments that are involved have approved this legislation. It has been cleared by the Bureau of the Budget,

and I want to urge upon you in the consideration of the measure that speed is highly essential.

There is one more thing. The rubber development program has passed the experimental stage. The experimenting has been carried on in this country, as the chairman of the Rules Committee told you, over a period of some 30 years. Originally grown wild in northern Mexico and western Texas, the company whose name you find in the bill started some 30 years ago to see if they could not develop a cultivated strain of guayule rubber in the United States. For many years their program was entirely unsuccessful. Some 20 years ago they traveled out to California and located in a southern county of my district and continued their research. They have taken a desert shrub that in its wild state yields from 7 to 8 percent rubber; that is 7 to 8 percent of the weight of the plant in rubber, and developed a plant that now, within 4 years in the field, will produce approximately 20 percent rubber.

I think this company is entitled to some consideration when this bill is passed by the House. What their tangible and intangible assets are worth to the Government, I am sure I do not know, but I think they are entitled to consideration of the fact that they have given 30 years to the development of this program, and this is generally acknowledged by the Department of Agriculture, which otherwise would have carried on these experiments, and they certainly should be reimbursed for such real property and such tangible assets as they have at the present time.

I have attempted to lay this program out to the best of my ability, and I shall be pleased to yield for the purpose of answering any questions that the Members may desire to propound.

Mr. REED of New York. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. Yes.

Mr. REED of New York. Perhaps I ought not to suggest or infer that I am asking the gentleman to yield to ask him a question, but I am very much interested in this because of what I have read in the newspapers. If it be true—and I assume that it is—that most of the rubber plantations of Malayan Peninsula have been destroyed deliberately, and that it will take considerable time to reestablish them, it would seem to me that, regardless of what we may think of this experiment, we can well afford to spend at least \$2,000,000 to try to find out how we can produce this very essential material to national defense. Research is being carried on by every government in the world, and this Nation now travels on rubber.

Mr. ANDERSON of California. The gentleman is correct.

Mr. REED of New York. The Army has to have rubber, and if this has gone on far enough so that it is shown by the experiment that it is just a matter of cost, then we cannot reckon the financial cost, now that we are in this war, a war that comprehends the whole world. I for one am willing to take a chance on

this proposition for \$2,000,000 to see whether we can produce this rubber and be self-sustaining. Permit me to say one word more. In 1934 this proposition was under consideration, and it was opposed, so I am informed, by Secretary WALLACE. If we had for the past 8 years been working on this proposition, giving it encouragement, and not letting the rubber monopolies or cartels step in and destroy it, we might today have been self-sufficient as to rubber.

Mr. ANDERSON of California. I thank the gentleman for his contribution. May I make one observation? I am not able to say what this company should receive for its tangible and intangible assets in this country, and I do not believe the House is qualified to state what it should receive. The bill I originally had before the committee contained a provision to acquire by purchase, license, or other agreement, or by condemnation, the tangible and intangible assets of the company. Let me make this clear. I do not think that any individual or any company or corporation is big enough to stand in the way of a development program of this kind in the United States, when it is so essential to the national defense.

The SPEAKER. The time of the gentleman from California has expired.

Mr. CASE of South Dakota. Mr. Speaker, I yield the gentleman 5 minutes more.

Mr. ELLIOTT of California. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. Yes.

Mr. ELLIOTT of California. As a matter of fact, the company at present will yield to any proposition within reason. Had the Federal Government been doing what this company has been doing for 30 years—to work out a program whereby it would be possible to grow rubber—it would have cost the United States Government far in excess of \$2,000,000.

Mr. ANDERSON of California. I think the gentleman is correct.

Mr. ELLIOTT of California. Our time is short, and now is the time in California when they must be planting these seeds. Nursery beds must be provided and we will have to save these seeds and plant them by the 1st of April.

Mr. ANDERSON of California. These available 23,000 pounds of seed should be in the ground, if possible, by the 1st of April of this year, in order to be ready for transplanting to the field next year.

Mr. ELLIOTT of California. Mr. Speaker, I compliment the gentleman from California, and call attention to the fact that 2 years ago the gentleman from California [Mr. ANDERSON] brought plants to Washington, and tried to interest the Agriculture Department. He has done perhaps more work in trying to bring this to the attention of the Department than anybody in the United States at the present time. It has been Mr. ANDERSON's life study since he has been in the House to bring these plants into production, and it has been through his tireless efforts that it has been brought to its present status, and I hope that this membership will not believe that this is a gold brick. This is a bill that should

be passed, and the 75,000 acres in California can be planted by the 1st of April if we know now.

Mr. ANDERSON of California. I thank the gentleman very much. His reports are appreciated.

Mr. DONDERO. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. Yes.

Mr. DONDERO. Mr. Speaker, up to this time private enterprise entirely has been responsible for whatever development there has been of this subject.

Mr. ANDERSON of California. Let me make this observation in reply: The Department of Agriculture, with its limited amount of funds, has planted a few experimental plots in various sections of the country, and they do have some idea of location with reference to where this plant can be grown, but the entire 30 years of experimentation and research have been made by private industry.

Mr. DONDERO. Can the gentleman give us any idea of the amount of rubber used in the United States in the years 1940 and 1941?

Mr. ANDERSON of California. The amount of rubber used in 1940 was about 600,000 tons. In 1941 it was somewhere in the vicinity of 700,000 or 800,000 tons.

Mr. VOORHIS of California. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. I yield.

Mr. VOORHIS of California. I believe the gentleman is entitled to the thanks of the House for bringing this bill in. It seems to me it is a matter of vital importance. As I understand it, is it not a fact that this is a proven process, that it has actually been shown that this is good rubber and can be practically used?

Mr. ANDERSON of California. Absolutely. There is no question about that.

Mr. VOORHIS of California. May I ask the gentleman one further question? Am I correct that the passage of the gentleman's bill would mean, in effect, that it would remove any patents or other possible bottlenecks existing in the free production or development of this type of rubber? In other words, it would permit all producers to carry this on to any extent?

Mr. ANDERSON of California. The job would be done by the Government.

Mr. VOORHIS of California. I understand, but there would be no restriction on someone else doing it if it proved suitable to them?

Mr. ANDERSON of California. That would be up to the Government department administering the program. In other words, the Department of Agriculture.

Mr. VOORHIS of California. But they would have every reason to encourage it, would they not?

Mr. ANDERSON of California. I should think so. I have thought so for a long time.

Mr. CASE of South Dakota. Will the gentleman yield?

Mr. ANDERSON of California. I yield.

Mr. CASE of South Dakota. I think the gentleman has made a very convincing presentation. There are two brief questions I would like to ask. Do I un-

derstand that the product of the guayule plant can be used by the present rubber factories without any great change-over?

Mr. ANDERSON of California. That is correct. You will find a statement to that effect in the hearings before the Committee on Agriculture.

Mr. CASE of South Dakota. Has the gentleman any assurance from the Department of Agriculture that they will use the seed that is available for planting in the various parts of the country to determine where it can best be grown?

Mr. ANDERSON of California. That is their program.

Mr. MURDOCK. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. I yield to the gentleman.

Mr. MURDOCK. I want to ask the membership to support this resolution, both the rule whereby the bill may be considered and the bill itself, because I consider it a very, very important measure. I also want to confirm at the same time what the gentleman from southern California [Mr. VOORHIS] said a moment ago. The gentleman occupying the Well of the House [Mr. ANDERSON of California] has instructed all of us. Even though I myself come from the Southwest and am somewhat acquainted with desert growth, I have been instructed during the past 3 years by the gentleman from California [Mr. ANDERSON] in support of this proposition. I just wanted to say that.

Mr. ANDERSON of California. I certainly thank the gentleman.

The SPEAKER. The time of the gentleman from California has expired.

Mr. WHITTINGTON. Will the gentleman yield?

Mr. ANDERSON of California. My time has expired. If I can get time under general debate, I will be glad to answer further questions.

Mr. MICHENER. Mr. Speaker, I yield the gentleman 2 additional minutes.

Mr. WHITTINGTON. Will the gentleman yield to me?

Mr. ANDERSON of California. I yield.

Mr. WHITTINGTON. Is it not true with respect to the cost being limited to \$2,000,000, that if you pay \$2,000,000 to this company, then the sky may be the limit, under section 3 of this bill?

Mr. ANDERSON of California. That is why I wanted to make it clear that the bill I introduced provided to acquire this property by condemnation.

Mr. WHITTINGTON. And do you not think that is necessary in order to protect the Government now?

Mr. ANDERSON of California. I do; but the committee did not.

Mr. PACE. Mr. Speaker, will the gentleman yield?

Mr. ANDERSON of California. I yield to the gentleman.

Mr. PACE. I do not believe the gentleman from Mississippi understands about purchasing the land.

Mr. ANDERSON of California. I am sure that can be explained to him.

Mr. PACE. The gentleman is not advocating that the Department of Agriculture buy hundreds of thousands of acres of land to experiment on this proposition for 2 or 3 years?

Mr. WHITTINGTON. I think it should have the right to acquire title to the land if they are going to pay \$2,000,000 for it.

Mr. PACE. The gentleman misunderstands. We are getting title to the land we are buying. We are leasing land that farmers are going to take the seed and experiment with it.

Mr. WHITTINGTON. You might if you pay what they want for it; but if you have got the right to condemn, you could get it at a reasonable value.

Mr. COFFEE of Washington. Will the gentleman yield to me?

Mr. ANDERSON of California. I yield to the gentleman.

Mr. COFFEE of Washington. Will you tell the House how much is produced by the Mexican guayule shrubs?

Mr. ANDERSON of California. Two years ago we imported 4,000 tons of Mexican guayule. Last year it was 6,000 tons, and next year we estimate the importation will be about 7,000 tons.

Mr. COFFEE of Washington. Is the annual rainfall about 10 or 12 inches where this plant is grown?

Mr. ANDERSON of California. That is the desired amount.

Mr. COFFEE of Washington. I want to congratulate the gentleman for the intensive effort he has made to bring this matter before the House. I am familiar with the Inter-Continental Rubber Co. I am satisfied as to its bona fides. I hope the gentleman and those with him may win out in this effort to contribute to our Nation's needs.

Mr. ANDERSON of California. I certainly thank the gentleman for his comments.

The SPEAKER. The time of the gentleman from California has again expired.

Mr. MICHENER. Mr. Speaker, I yield the remainder of the time, 7 minutes, to the gentleman from Michigan [Mr. DONDERO].

Mr. DONDERO. Mr. Speaker, coming from the State of Michigan, where the automobile empire of the world is situated, it is not surprising that I am greatly interested in the subject of rubber, a subject inseparable from the automobile industry, a substance vital to the Nation's defense and necessary to the continuance of the greatest industry in this country, namely the manufacture of automobiles. I want to congratulate the gentleman from California [Mr. ANDERSON] for the contribution he has made to the welfare of this country through an untiring effort to bring this matter to the attention of the Congress and the importance of the growing of rubber, not only to the present welfare of this Nation but the future as well. Events in the Far East in recent days have demonstrated that it is time the United States Government took some action to provide in the future that supply of rubber so essential in keeping the armed forces of our country and our Allies adequately supplied with the implements of war. I am heartily in favor of the rule and the bill, and shall support both. My purpose in taking the floor at this time is to give the Members

some information I have obtained from the Bureau of Foreign and Domestic Commerce of the Department of Commerce.

Mr. MAY. Mr. Speaker, before the gentleman starts on that will he yield for me to make a brief statement?

Mr. DONDERO. I yield.

Mr. MAY. The Congress some 3 years ago declared as a national policy in the Strategic Raw Materials Act that we should develop in our own country our domestic resources in all these materials, of which rubber is one. Rubber stands high on the list of strategic materials for the War Department. The House Military Affairs Committee reported a bill that was passed in which it was declared to be the policy of Congress that the natural resources of the country should be developed so that we should not become dangerously dependent on any foreign product.

Mr. DONDERO. The statement made by the gentleman from Kentucky [Mr. MAY], the distinguished chairman of the Military Affairs Committee of this House, indicates clearly that consideration of the bill now before us should have been taken 3 years ago. The war has demonstrated in an accentuated manner the necessity for the production of this commodity by the United States. The Department of Commerce has furnished the following information on synthetic rubber now being produced in the United States. In 1939, 2 years ago, only 2,250 tons of synthetic rubber was produced in this country. Last year, 1941, that had risen to 11,700 tons; but when you compare that figure with our needs, how small it seems, for last year we used 700,000 tons of rubber. It will be seen that the synthetic rubber that might be produced in this country would be a very insignificant amount compared to the total used in its various forms, and particularly in our national defense effort.

The Department informs me that in April of last year contracts were entered into between the Rubber Reserve Company—R. F. C. subsidiary—and the Firestone, Goodrich, and Phillips Petroleum, Goodyear, and United States Rubber Cos. providing for four factories to be built, each to have an initial capacity of 2,500 tons annually, but to be capable of developing a 10,000-ton annual capacity. The development of the full 10,000 tons each was provided for July 1, 1941, under agreements with the participating companies, and the engineering plans for these factories are said to have contemplated possible future tripling of that capacity in each factory. Following Pearl Harbor, the Federal Loan Administrator recommended expansion of Government-sponsored synthetic rubber production facilities to 120,000 tons, or 30,000 tons each for the four factories, and this was given approval by S. P. A. B. December 23 "subject to detailed examination of the program by the Division of Priorities to make certain that sufficient materials can be provided for construction and operation of the plants."

Mr. WOODRUFF of Michigan. Mr. Speaker, will the gentleman yield?

Mr. DONDERO. I yield.

Mr. WOODRUFF of Michigan. Does the gentleman know anything about the possibility of producing synthetic rubber from grains and farm products?

Mr. DONDERO. The Department has not advised me on that subject.

Mr. WOODRUFF of Michigan. If the gentleman will permit a further interruption, I may say that the latest process to be developed for the manufacture of synthetic rubber utilizes grains and farm products. Scientists who know state that there is enough surplus grain on hand to produce all the synthetic rubber this country can possibly use now or at any time.

Mr. DONDERO. It would be a valuable asset if we found guayule rubber could not be produced in sufficient quantities.

Mr. WOODRUFF of Michigan. And may I venture the hope that every possibility of producing synthetic rubber will be explored to the limit so we may secure the rubber we desperately need at this time.

Mr. DONDERO. I am sure the House shares the gentleman's interest and hope.

Mr. WOODRUFF of Michigan. I approve of this bill, and I will approve any legislation that will step up our supply of rubber.

Mr. HARTER. Mr. Speaker, will the gentleman yield?

Mr. DONDERO. I yield.

Mr. HARTER. Let me preface my question by saying that I believe every step should be taken to secure additional raw rubber for the manufacture of finished rubber goods. Every opportunity that offers should be availed of. I am wholeheartedly in favor of the measure the gentleman supports this afternoon; but I do wish to ask if it is not a fact that high administrative officials of our Government now advocate the building of plants for the production of 400,000 tons of synthetic rubber annually?

Mr. DONDERO. I do not have the latest figures, but the figure I mentioned came from the Department of Commerce, and I assumed that that was the maximum. I hope, however, that it can be expanded.

Mr. HARTER. I believe the gentleman will find that plans are now being made to expand synthetic-rubber production in this country to a figure of 400,000 tons annually.

Mr. DONDERO. The history of rubber is both interesting and fascinating, and I give to the House a short statement of the steps taken by the Goodyear Co. in its effort to expand the production of rubber not only in the Far East, Malaya, and the Netherlands East Indies, but in the Western Hemisphere as well. Undoubtedly the great rubber plantations in Malaya are now under the control of the Japanese, and perhaps have been destroyed to keep this most valuable substance from falling into the hands of our enemies.

RUBBER Origin

Forebears of Hevea plantations of the Far East originated in this hemisphere. Christopher Columbus, returning from one of his voyages, brought with him some samples of

the substance which he had found in tropical jungles.

In 1839 Charles Goodyear discovered the process of vulcanization and thereby made possible the utilization of this substance.

In 1876 the British obtained Hevea seed from the valley of the Amazon, and in the course of time planted them in Malaya and the East Indies, forming the foundation of the modern plantation system.

As late as 1912 more than half of the rubber consumed in the United States came from the wild trees of tropical America, but with the rapid development of the automobile there was a concurrent development of the British and Dutch plantations, with the result that today less than 5 percent of our supply comes from the wild jungles, while more than 95 percent comes from the cultivated plantations.

In 1922 the first of the rubber restrictions plans was put into effect by the British, known as the Stevenson Act, and restricted the export of Hevea seed as well as the production of rubber. The Dutch, French, and other Governments, controlling important sections of the rubber plantation areas, did not join with the British in this plan, which collapsed in 1923 after forcing the price of crude rubber up to \$1.25 per pound.

This act on the part of the British forced Goodyear to establish a plantation under the American flag. Two thousand five hundred acres were acquired by the company in the Philippines, and this tract was developed with the highest yielding budded stock obtainable in the East.

When the joint restriction program of British and Dutch did become operative in 1934 we had a stepping stone beyond the control of those nations from which we brought the finest stock back to the Western Hemisphere.

In 1934 Goodyear concluded negotiations with the Government of Panama for transplanting stock from our Philippine plantations and acquired 2,800 acres of land abutting the Canal Zone for an experimental plantation. Four thousand young budded trees of the best collection of high-yielding families of Hevea trees were brought to the Canal Zone with the cooperation of the Army authorities.

In 1935 we arranged with the Government of Costa Rica for the planting of some of the stock, acquiring 1,000 acres of abandoned banana land, and named the new Costa Rican plantation "Speedway."

In 1940 a cooperative agreement between Goodyear and the United States Department of Agriculture was concluded, paving the way for the interchange of valuable high-yielding Hevea planting material between Goodyear and countries of tropical Latin America.

This demonstrated that much scientific work had to be done to produce a strain of rubber which would thrive in the Western Hemisphere.

Hazards

While native to this hemisphere, when densely planted is subject to leaf blight of Amazon regions. This disease destroyed early attempt to cultivate Hevea in Dutch Guiana and on the island of Trinidad. Had to develop a leaf-blight resistance stock. This delayed the work in Central America for several years. Now Goodyear feels optimistic regarding future results.

Department of Agriculture and Department of State have cooperated wholeheartedly in the development of rubber in this hemisphere.

Recently a large supply of high yielding rubber trees have been shipped from Philippine plantations to Haiti for use of Haitian-American Corporation, which was formed by Haiti and United States Governments to develop agriculture and mineral resources of Haiti. Rubber is one of the principal developments.

Recently acquired 1,500 acres in Costa Rica. This will be ready for planting during the

coming year. Primary stock will consist of material combining best qualities of blight resistance and high yield.

Situation today on rubber supply:

1. Have nationalized emergency stock of natural crude rubber brought in from Far East during present year. This stock wholly owned and controlled by our Government and will keep American war machine in smooth operation for another year and probably longer.

2. Have manufacturing plants for production of reclaimed or regenerated rubber connected with Goodyear rubber factories. These factories have high total capacity and are now turning out large supplies of reclaim which can be converted into tires and other rubber products. Tires of regenerated rubber do not have wearing qualities of tires from crude rubber, but will help.

3. Rapidly expanding facilities for production of synthetic rubber, and within next 12 months under present program country's capacity can reach more than 30,000 tons per year. Can be rapidly expanded to any extent emergency needs, using only materials which are produced within continental boundaries of United States.

4. Rubbers normally having a more restricted use than Hevea, such as Castilloa and guayule, are already grown to small extent in the Americas. Former grown in tropical latitude and latter in arid regions of northern Mexico and southwestern United States. Gathering and planting of these rubbers can piece out total available supply during emergency.

5. Substantial foundation laid for development of rubber growing in Western Hemisphere. Results in this field cannot be expected for a matter of years.

Mr. THOMASON. Mr. Speaker, I ask unanimous consent to revise and extend my remarks on the pending bill and to include some excerpts from an article by C. L. Chapin, and also some newspaper articles.

The SPEAKER. Is there objection to the request of the gentleman from Texas [Mr. THOMASON]?

There was no objection.

The SPEAKER. The question is on agreeing to the resolution.

The resolution was agreed to.

Mr. FULMER. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the state of the Union for the consideration of the bill (S. 2152) to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses.

The motion was agreed to.

Accordingly the House resolved itself into the Committee of the Whole House on the state of the Union for the consideration of the bill S. 2152, with Mr. THOMAS of Texas in the chair.

The Clerk read the title of the bill.

The first reading of the bill was dispensed with.

Mr. FULMER. Mr. Chairman, I yield myself 5 minutes.

Mr. Chairman, during this brief time I do not propose to speak on the merits or the demerits of the bill. May I make the statement that the Intercontinental Rubber Corporation has been operating for about 30 years in California as I understand it, and, of course, if there is a possibility of producing rubber out of guayule, and I understand there is, certainly they were unable to do it because they had no protection from cheap

foreign rubber. The pitiful thing to me is that during all these years we have spent thousands and thousands of dollars for research, much of which should have been put into this type of work, but we have not been getting results. Certainly if we have in this country guayule or any other plant or shrub that will produce real rubber, we should have been producing rubber all along. When I asked the president of this corporation whether or not he would continue the operation of his corporation if we would subsidize the price so that he might be able to make it profitably, he said no, he did not want to do that because the Government could do it better than he could. When any business concern wants to unload on the Government, then they are willing to admit that the Government can do it better than they can.

During all of these years we have had no protection against cheap foreign rubber and we have not done anything about it. Now we have an emergency and, of course, the Government is called upon to spend millions of dollars in connection with this project and also in connection with producing synthetic rubber. We could have been producing synthetic rubber all along out of wheat, corn, potatoes, and oil, but the large monopolistic rubber manufacturers did not want that. We can produce cheap synthetic rubber out of grain and we have a large surplus on hand. If you will ask me why we do not do it, I will tell you it is because of certain selfish groups that want to use petroleum oils. I asked the Firestone Rubber Co. representative why they did not manufacture synthetic rubber. He stated their machinery is not suitable for the manufacturing of this type of rubber. They are going to let the Government do it and you will find Jesse Jones, of the R. F. C., putting millions into it.

A representative of the Firestone Corporation appeared before our committee, and I asked him the question, "What about continuing this line of work after the emergency?" Oh, no," he said, "there would not be anything to that." Why? If we can produce it, if we can utilize our own land and our own people, why should we not continue to do it? Because they want the Government out of this business after the emergency. They want to go back to the cheap rubber in these other countries where they have millions invested and where they can buy cheap rubber, shipping same into this country duty free. Why, our own Government is spending millions outside of the United States in research and developing rubber plants and trees.

The matter of sugar was referred to a while ago. As you know, I have tried to be helpful to sugarcane and sugar-beet farmers, giving a lot of time to that proposition. We can produce all the sugar we need in this country, but because of certain selfish interests, as in the case of rubber, nothing has been done about it. You cannot pass legislation in this House dealing with sugar unless it had the O. K. of the large sugar refineries.

While the farmers who produce sugarcane and sugar beets in this country are being held down in their production, many of them being in poverty, while we

are rationing sugar to the people of this country, we have a lot of rubber in this country at this time and we will continue to import from Mexico and Brazil, but it will not mean anything to the small dealer, because it will be handled by the large manufacturer and large chain stores and large dealers.

I want to call to your attention that you will find that it will take 4 or 5 years before you will get any rubber out of this proposition and that we are just going to put a lot of money in a rat hole. After the emergency is over the Government's operations will fold up and the big boys will go back where they have been buying cheap rubber in the past.

Mr. WOODRUFF of Michigan. Mr. Chairman, will the gentleman yield?

Mr. FULMER. I yield to the gentleman from Michigan.

Mr. WOODRUFF of Michigan. Did I correctly understand the gentleman to say that it would be 4 or 5 years before we could get into large production of this rubber?

Mr. FULMER. That is the definite information given to our committee, and it is a very small amount even at that time. In the meantime we could have been producing synthetic rubber all along, even now tons and tons of it. If we will preserve the rubber we have on hand, owned largely by these large rubber concerns, and what will come in from Mexico and other countries, to mix with synthetic rubber, perhaps we would have all the rubber we want. This company has been making money in Mexico, but they are holding on to the Mexico property. They would not sell you that. They have lost money all along in California and they now propose to unload on the Government. This company owns land in Arizona, but they made a failure in that State.

I am not talking about the merits of this shrub as to whether or not it will produce rubber; I am talking about what we have not done in the past and what is going to happen after you put all of this money into this proposition.

If it is a good thing and in that we offered to subsidize the price so they could make a profit, why do they refuse to continue their operations? They know after the emergency it will be out of the window and that now is the time to unload.

Mr. WOODRUFF of Michigan. Does not the gentleman agree with me that in the event we develop a synthetic rubber industry to the point where we can perhaps supply all our own needs in rubber, this Congress should see to it that the domestic industry so developed is preserved and that it be developed to the point where it will prove a mantle of protection to the rubber industry and the people of this country.

Mr. FULMER. I agree with the gentleman absolutely. If it is necessary, if we cannot produce it out of guayule and the shrub commonly called rabbit brush, to which the gentleman from Nevada [Mr. SCRUGHAM] will refer to in a few minutes, then let us import a sufficient amount of real rubber, if we have to have an additional amount to mix with our synthetic rubber manufactured in this

country which will be in the interest of our producers and wage earners. You can rest assured, however, as stated, that after the emergency we will go back to the old situation.

Mr. WOODRUFF of Michigan. Does not the gentleman agree—and I think he is fully informed—as to the possibilities of manufacturing a very high-grade synthetic rubber from farm products?

Mr. FULMER. It has already been perfected, I may say to the gentleman.

Mr. WOODRUFF of Michigan. Will not the gentleman agree with me also that before we begin a program of producing alcohol from sugar we should at least use some of our excess grain to produce alcohol and also the synthetic rubber we need so badly?

Mr. FULMER. I agree with the gentleman from Michigan, but that might be helpful to farmers, and it will not be done. You do not hear Jesse Jones, the R. F. C. Administrator, saying anything about spending \$400,000,000 in putting up plants to manufacture synthetic rubber out of wheat and corn. Oh, no; that would not be satisfactory to the Standard Oil Co.

I understand that Mr. Jesse Jones, R. F. C. Administrator, appeared before the House Banking Committee some days ago, and stated:

Rubber supplies in the United States next year should be sufficient to take care of our vital needs.

The Government is now enlarging the program of synthetic rubber production.

By the middle of 1943—

Mr. Jones stated a few weeks ago—the output of synthetic rubber should be sufficient to meet our essential military requirements and limited nondefense needs.

However, we note the following item carried in the press some days ago:

LONDON, February 4, 1942.

An arrangement between Britain and the United States for development in the United States of synthetic rubber on an immense scale was discussed in the House of Commons yesterday.

The announcement came at the end of a debate on the Government rubber-control policy, during which Laborite John Parker charged Britain's reclamation and synthetic production were slow because of opposition from the tire interests.

You will note that Britain's production of synthetic rubber was very slow because of the opposition of the automobile tire interests.

Now, that is what I have been talking about.

The reason that we are in the predicament that we are in at the present time is solely because of various selfish interests interfering with the Government and this country doing the things that we should have been doing all along.

This is true in a great many other lines.

During all the years prior to this emergency we have been importing into this country tons and tons of fats and oils, duty free, all because of the influence of Procter & Gamble, and other large manufacturers of oil.

Not only have our farmers been prevented from producing more fats and

oils in this country under this program, but it has enabled these large manufacturers to fix the price of our fats and oils on a starvation basis.

For instance, in the fall of 1940 cottonseed oil was selling for 4½ cents per pound and cottonseed was selling from \$18 to \$25 per ton.

Today the Department of Agriculture is begging farmers to increase production of soybeans and peanuts, in fact, all fats and all oil-bearing products, with the hope that we may be able to increase our production to the extent that we may be able to remedy a serious shortage in this country.

In the meantime, because of not being able to ship in these oils and fats because of lack of shipping space, cottonseed oil is selling for 12½ to 13 cents per pound, and cottonseed, \$60 per ton.

This is true in the way of increased prices on fats and soybean oil.

I have a bill pending before the Ways and Means Committee proposing to place a duty on starch, fats, oils, and jute so that we may be able to give our farmers, who are sadly in need of increased purchasing and debt-paying power, our own markets for our own products, but this bill is resting peacefully with that committee, and I can assure you that when this emergency is over Procter & Gamble, with their well-organized, monopolistic crowd, will go back to the importing of tons and tons of these products, all at the expense of the farmers of this country. I could go on and on, along this line, but what is the use?

Mr. HOPE. Mr. Chairman, I yield 3 minutes to the gentleman from Minnesota [Mr. AUGUST H. ANDRESEN].

Mr. AUGUST H. ANDRESEN. Mr. Chairman, all this rationing we hear about makes us somewhat skeptical as to whether or not there is a need for some of the policies that are put into operation in this country. I think Fulton Lewis, Jr., is doing a splendid job on his investigation of sugar rationing. If you have not heard him over the radio on his evening broadcasts, you might listen in, because he is uncovering some of the things that we should know about here in Congress and that the people of the country have a right to know.

Many confusing things are taking place. The other day Jesse Jones stated that we would have an abundance of rubber from the Far East by the end of 1943, and that there would be no difficulty in securing rubber. If we are going to have an abundance of raw rubber from the Far East, of course, there will be no need to pass this legislation, but from the way things are going over in the Far East, it may take many, many years before we recover our source of rubber supply from that section of the world.

I am not interested particularly in the company that owns the seed and owns the factories and the land in California, but I am interested in securing rubber supplies for the American people. That should be our first concern. If our source of supply in the Far East disappears, then we should take every means, irrespective of cost, to procure supplies grown in this country or in other countries in the Western Hemisphere.

The experts say that the guayule plant which produces approximately 20 percent rubber can be grown in this country and that they can use the rubber. Mention has been made of the large quantity of synthetic rubber that is contemplated for production in the United States. You need raw rubber with the synthetic rubber in order to make tires and other rubber products, so if the guayule plant is produced, then they will use that 65,000 tons which will eventually come into production from the seed that they now have on hand. This will give us a fair supply of rubber for the United States.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield the gentleman from Minnesota 2 additional minutes.

Mr. AUGUST H. ANDRESEN. Now, there is some question about the price that is to be paid to this concern. I am not interested in the price. I think it was a mistake to put the price in the bill. Under the powers heretofore delegated, those in charge of the administration of the Government could go in and seize this or any property that was in the interest of national defense. However, the subcommittee in charge of the bill, after due consideration, thought it best to limit the price for the seed and for the company's properties in the United States to \$2,000,000. This may be too high or it may be too low, but we will hope that those in charge of carrying out the law will try to get the best possible price for the Government on this property and gain the assistance of the experts who have worked for nearly 25 years in developing the guayule plant as a source of rubber supply.

We need the rubber. We should back this experiment. We should foster a proposal where we can produce rubber and other products in this country. In the interest of that objective I urge my colleagues to support this bill so we can begin the long-delayed process which we should have started years ago in this country to make our Nation self-sustaining in rubber production.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield such time as he may desire to the gentleman from Nebraska [Mr. STEFAN].

Mr. STEFAN. Mr. Chairman, there should be no opposition to any legislation which will make possible the development of substitutes for the critical material we need so badly now to win this war. This legislation is for the purpose of eventually making a certain amount of rubber from a plant known as guayule. It grows in a wild state in Mexico. I have seen it in that country, and I have seen samples of it brought to Washington by our colleague; the gentleman from California [Mr. ANDERSON], who is the author of this legislation and who has worked for many years endeavoring to interest various departments here in the guayule plant as a source of rubber.

We are only beginning to experience what people in Europe have long ago become used to so far as rationing is concerned. The word "rationing" is just beginning to be understood in the United States. As this new World War progresses, rationing will become more wide-

spread. Rationing is absolutely necessary because there is either an immediate shortage of certain material or because experts who have studied the matter from official figures know other certain materials will be short later on. Rubber is only one of the critical materials which are listed. The reason your Government has frozen rubber tires and tubes is because the country has been cut off from the real supply of rubber. Over 90 percent of our rubber supply—and that runs to around 600,000 tons a year—has come to us from the Malayan Peninsula and the Dutch Indies. Although the original rubber tree was found in South America many years ago it did not grow well on this hemisphere, and it was transported to the Far East, where it was planted and where it is apparently isolated from its natural tree and leaf disease element which existed in South America. Of course, we are experimenting with rubber in countries south of us, and there is some available there. But most of the rubber has come to us from the Far East, and that supply is cut off because of the war. It is even indicated that perhaps much of the rubber production there has been destroyed to keep it from the hands of our enemies.

So we are now engaged in a general program to get our supply of rubber and other critical materials elsewhere. In many cases we are assured that we have plenty of critical materials right here in the United States which heretofore have been brought to us from countries now isolated by war. But some of those materials, including rubber, will have to be supplemented by substitutes or synthetic materials.

Guayule is only one of several means of substituting for the rubber we no longer get from Malaya and the Dutch Indies. Some of our rubber manufacturers have been making a substitute from various products, including coal and coal products. The "ersatz" secrets, so far as rubber is concerned and used extensively in Germany, is known to our experts. I am not certain just when we can expect any large quantity of rubber from guayule. It may be 2 or 3 years. We hope it will be sooner than that. But guayule cannot be depended upon to supply all our needs. It is but one of many means of adding to our supplemental stock.

So I call your attention to products which are already available and which will make a superior grade of rubber according to information supplied to me by experts of high standing. I call your attention to corn, wheat, and the grains from the farms of Nebraska and other Midwest States. This grain, of which we have a surplus, can be turned into a good grade of substitute rubber immediately, we are told.

So while we are somewhat optimistic now about guayule, which will make rubber later, if we plant enough of the plants, we must not forget that we have now in our corn cribs and in our grain bins huge quantities of material from which rubber can be made immediately. Of course, rubber is not the only new use to which we can put our large supply of corn and grains. The Army and Navy will need huge quantities of powder and

other explosives. Industrial alcohol can be made from this corn and grain immediately and that corn and grain alcohol is badly needed now for these explosives of victory. I hope that members of this House will give some attention to the importance of these farm products and their relation to material of war as well as material for food. Those of you who fear so much that we will have a surplus of food should give more study to this farm chemistry problem which will play a very important part in the winning of this war. The corn and grain of Nebraska can easily replace the sugar and molasses which is still being used for the manufacture of alcohol. Release that molasses for sugar and let its natural material, corn and grain, take its rightful place in the field of industrial and other alcohol.

While we are on the subject of corn and grain as a great source for substitutes for rubber and alcohol I wish to commend the Department of Agriculture in its campaign among farmers to produce more critical products. I hope the word "surplus" will be eliminated soon, because if this war becomes long, there will be no surplus of any farm product. I wish to suggest to the Department of Agriculture and to those committees responsible for agriculture legislation that some new policy be determined regarding voluntary wheat. It has been called to my attention that thousands of acres of voluntary wheat must be plowed under because it does not fit into the program. I hope this wheat will not be destroyed. Every head of that wheat represents either bread, industrial alcohol, and even rubber or some other material which we may need badly as the war progresses. I have followed the gleaners in Europe only a few years ago. It was at the time the German armies were marching to Poland. I talked to those gleaners. Some of them old men and old women on the farms. Old people who had witnessed several wars and who knew what suffering war brings. Every head of wheat and every kernel of corn is saved because of the uncertain future. The people in those war-torn lands know the value of food during and after any war. I hope this voluntary wheat will not be plowed under. I make this statement here because I believe it may reach the attention of those who are seriously interested in the future of our country. One of the most important lines of our defense is out there on the farms of Nebraska and other corn and grain growing States. I fear the plowing up of any kind of farm product at this time is unwise, and if the Department could make some remedy in this policy without damaging the general farm program, I am sure most of the farmers would appreciate it. It would result in much good for our entire country.

I am sorry to digress from the discussion of guayule, which is the subject before us, but I have just come out of the room of the committee which makes appropriations for the Department of Agriculture. I have learned that the Budget has cut our regular requested appropriations for farm extension work and also for our farm experimentation

work. Because of the importance of the farm as related to our war effort, I felt that to cripple the farm extension service and the farm experimentation service now would be fatal. So I have pleaded with the committee to give these two items and several other farm matters their careful consideration. I have been promised by the committee that such careful consideration would be given, and for that assurance I am grateful. I did feel, however, that while we are passing favorably here on a guayule plant experimentation program, it was my duty to call your attention to the importance of farm products we already have on hand and which are available for the very thing we expect from guayule. Also I felt that I should call your attention to the fact that the agriculture appropriation bill is soon to be brought before you and also to put you on notice that it is highly important to watch the items on farm extension and farm experimentation work items which will be in that bill. I assure the committee that while I am anxious to reduce all nonessential and nondefense items in appropriation bills, there must be no reductions in farm items which are closely tied up with our war effort.

Mr. FLANNAGAN. Mr. Chairman, I yield myself 19 minutes.

Mr. Chairman, I want to congratulate our colleague the gentleman from California [Mr. ANDERSON] upon the good work he has been doing to develop the rubber industry in the United States.

Mr. Chairman, under ordinary circumstances I would be against this piece of legislation. I would be against it because it puts the Government in the rubber business. And then, too, under normal conditions, the Government, under the bill, is making a bad trade to get into a losing business.

I think I would be remiss in my duty if I did not give the Members the true facts, as I understand the facts, and my reason, in spite of the seemingly unfavorable facts, for being in favor of the bill. Guayule is a shrub from which real rubber can be extracted. Down in Mexico, where it grows wild, the Intercontinental Rubber Co. for some years has been processing the shrub into rubber at a profit. This has been possible due to the fact the shrub in Mexico does not have to be cultivated and cheap labor to harvest and process the shrub is plentiful. Some 30 years ago the Intercontinental Rubber Co. began to experiment with the guayule shrub in Arizona and some 20 years ago in California. After spending some \$1,186,985 in Arizona, the project was abandoned. In California some \$2,520,814 have been spent by the company. The California project, from a financial standpoint, has proven a failure due to the fact that the cost of producing guayule rubber is all out of line with the costs of producing Hevea rubber in Malaya and the Dutch East Indies. The company, unable to develop the rubber content in the guayule shrub to a point that would make it possible to compete with the price of Hevea rubber, will, I gather from the testimony before the committee, salvage its California holdings in the event this bill is defeated. It is an opportune time to unload on the

Government, and that, in my opinion, is exactly what the Intercontinental Rubber Co. is trying to do. If this is true, I know you will ask, Why did the Committee on Agriculture make a favorable report? This is a fair question, and the membership is entitled to a full and frank answer. The rubber situation in the United States is critical. Due to the insane rubber policy we have adopted of securing our natural rubber supply from Malaya and the Dutch East Indies, 5,000 miles away from home, today we are faced with the fact that our rubber supply has been cut off. Seemingly we did not have foresight enough to lay by a sufficient rubber supply to carry us through the emergency that has been hovering over us for the past few years and became a reality after Pearl Harbor. Criticizing and talking about policy and foresight now, I know, will not solve our problem. These things can wait. We cannot, however, wait on the correction of these things for our rubber. We need—desperately need—rubber now. A mechanized Army goes to work on rubber and our task is to keep the Army rolling. And because we believe in keeping the Army rolling is the reason we made a favorable report on this bill. Oh, while I still feel that the Intercontinental Rubber Co. is taking advantage of our situation, I say to you that I think we would be criminally neglectful of the welfare of our country if we did not immediately pass this bill and push the production of guayule rubber as hard as we can.

I realize that we have provided for the production of synthetic rubber. In our frenzy, it would seem—many think—that the production of synthetic rubber will solve our rubber troubles. This is far from the truth. Synthetic rubber, unless you have real rubber—Pará, Castilla, or guayule rubber—to mix with it, is useless.

As I stated, over 90 percent of our supply of natural rubber has been coming from Malaya and the Dutch East Indies. The English and Dutch have an unholy monopoly on natural rubber. Although the tree from which natural rubber comes is a native of Brazil and was transplanted in the Dutch East Indies and Malaya, last year these areas produced 1,563,000 long tons of rubber, against the Brazilian production of 42,000 tons. This is indeed a sad commentary upon our rubber policy. If we had only helped develop the rubber industry in Brazil we would not only have increased our trade with Brazil but would have an adequate supply of rubber close to home.

There are five potential sources of natural rubber still available to us. They are the hope and refuge of a great nation for a prime necessity. Any one of them is pitifully inadequate, and all of the sources put together will suffice to meet only the bare strategic requirements of the next 2 or 3 years.

The potential sources of natural rubber are: First, the remnant of plantation Para rubber not in areas already overrun by the enemy, which, of course, will be entirely eliminated unless we stop the Japs; second, wild Para rubber in the forests of the Amazon Valley; third, wild Castilla rubber in the forests of northern tropical America; fourth, wild guayule

rubber in Mexico; fifth, cultivated guayule rubber in the United States.

Except for the wild guayule in Mexico, which at present only supplies a little over 1 percent of our needs, but which will be increased this year to about 2 percent of our needs, the other sources will yield almost nothing unless we face facts and put our shoulders to the wheel. Our need for natural rubber will become desperate in 1944 unless forceful action is taken today. By the most careful planning and by the extension of credit to finance the difficult operations in the remote parts of Central and South America, we might get 100,000 tons, or a sixth of our normal needs, of natural rubber from the wild Para, Castilla, and guayule in 1944. If the synthetic factories are producing 400,000 tons in 1944, that amount would not suffice to do more than help to meet the requirement for the mixture of natural and synthetic rubbers indispensable for strategic needs if we are at war in 1944.

From the facts presented by reliable witnesses, the most optimistic picture that can be painted is that 1945 will mark the first year of rubber production, including synthetics, approaching the rubber consumption of 1941. The fresh natural rubber from all of the possible rubber sources would be only a little over one-fourth of the natural rubber brought into the country in 1941. Even that small amount will spell the difference between a usable, dependable tire and a tire that no expert will give an unconditional endorsement to, namely, the synthetic or rubber-substitute tire.

Even that small amount of natural rubber can be produced only by taking the first steps right now and in a logical manner. It will not just appear and be there. Tremendous effort, coupled with airtight planning and management, will bring the wild rubber, but that is at best a limited and a fixed amount.

Only by launching a cultivated guayule industry is there any hope of a supply of natural rubber that will not be limited and fixed in amount, but can expand, depending on the estimate of amounts needed and plantings made 2 or 4 years before the time it is needed. Reliable witnesses say that 2-year-old guayule will make rubber, but the cost is considerably more than rubber from 4-year-old shrubs. We can at least take our choice of harvesting in 2 years or 4 years, depending on the urgency of the need.

Moreover, if the war lasts 4 or 5 years, and we are still on our own resources for natural rubber, we are assured that the only hope for civilian tires of dependable quality lies in the planting of guayule. Limiting the use of rubber to strategic needs carries more significance for our farmers than just depriving them of tires. Between a half million and a million bales of cotton go into tires every year when normal demands are met, and the cotton farmer, as usual, will have to pull his belt tighter unless we take a sane and prudent view of the situation and start to build back toward the normal demand with such resources as we have.

Our production of guayule rubber, from the testimony of reliable witnesses, in the event we acquire the California holdings of the Intercontinental Rubber Co.,

depending on whether we leave the guayule shrub in the ground 2 years or 4 years, can be stepped up as follows:

	<i>Production</i>
1942-----	Nothing.
1943-----	Nothing.
1944-----	550 tons.
1945-----	1,600 tons.
1946-----	60,000 tons.
1947-----	600,000 tons.

If the shrub is harvested in 2 years, the step-up will be:

	<i>Production</i>
1942-----	Nothing.
1943-----	Nothing.
1944-----	15,000 tons.
1945-----	150,000 tons.
1946-----	150,000 tons.
1947-----	150,000 tons.

From the evidence we cannot hope to obtain more than 100,000 tons of natural rubber from the jungles of the Amazon Valley and northern tropical America, and we cannot hope to reach this 100,000-ton mark until 1944. And the evidence further shows that it will be practically impossible to increase this peak tonnage of 100,000 tons. Furthermore, the evidence shows that we cannot hope to obtain plantation rubber from the planting in Brazil and Central American countries before 1950, and that the rubber obtained from the plantings of the Firestone and other companies to be practically negligible.

From these figures, it would seem, we are forced to turn to guayule rubber.

Now, a word as to the cost and price of rubber. Rubber for the past 5 or 6 years has been selling for from 12 to 22 cents per pound. The price is now pegged at 22½ cents per pound. The average 1930-39 price was 12½ cents per pound. In 1912 rubber went to \$3 per pound, and in 1923 to \$1.21 per pound.

The testimony shows that the cost of jungle rubber—rubber from the remote parts of Central and South Americas—will be from 35 to 45 cents per pound. The testimony further shows that guayule rubber can be produced in this country, if we embark upon a long-period operation, say 20 or 30 years, for approximately 20 cents per pound, and if we amortize the operation over a period of 5 years, and then go out of the business, for from 32 to 36 cents per pound.

Now, a few words as to what we will obtain for the \$2,000,000 the bill authorizes the Government to pay for the holdings of the Intercontinental Rubber Co. In justice to the company, I think I should give you a fairly accurate inventory. While I still think that the company picked an opportune time to unload on the Government, there is some merit, to say the least, in the company's contention. The holdings of the company consist of approximately 1,000 acres of land, 556 acres of which are in planted shrubs, that cost \$212,329, a processing plant that cost \$244,297, machinery that cost \$139,000, a nursery that cost \$74,996, a laboratory that cost \$17,917, trade secrets for germinating the seed uniformly, growing the guayule shrub and processing the shrub into rub-

ber, and 23,000 pounds of guayule seed. It is, of course, impossible to estimate the value of the trade secrets and seed. These seed have been gathered from the guayule shrub that has been improved until its rubber content has been greatly increased. The rubber content of the wild guayule shrub runs from 1 to 19 percent, averaging around 12 percent. The rubber content of the shrub as improved by the company runs from 17 to 20 percent, averaging around 18 percent. The Intercontinental Rubber Co., the evidence shows, is the only company that has experimented with guayule, and the 23,000 pounds of seed owned by it are the only improved seed in existence.

There are just a few more things I desire to call to your attention. Time is of the essence. The seed, if sown, will have to be put in the ground by next month. In the meantime the nurseries will have to be prepared for the seed.

We have safeguarded the Government in every way we could by amending the Senate bill in the following particulars: We limited the provision in the Senate bill giving the Government the right to purchase land, to land needed for nurseries and plant sites. Under the House amendment, the Government would have to lease land for planting or contract the planting. The Senate bill does not set a limit on the purchase price to be paid the Intercontinental Rubber Co. and provides for the right to condemn. The House amendment sets a limit of \$2,000,000 on the price. We were advised that the company would accept this amount for its holdings. The reason for this amendment was the thought that, in all probability, the Government would have to pay a much larger price if it condemned. Under the Senate bill, the Government was authorized to engage in the planting and production of guayule anywhere in the Western Hemisphere. The House bill limits the operations of the Government to the United States.

In conclusion let me say we have been drawn into a war with a resourceful enemy. It will be prudent to view the prospect of a real war with an enemy that has treacherously prepared for it during 30 years, charting every nook and cranny of the Pacific, and locating and mapping every beach head for a landing force. We have been caught napping. Against trained manpower in hordes and accumulated war material we have resources of factories and potential raw material. If we have the intelligence to put them together, we need not fear that we can find men like MacArthur's men in the Philippines and the marines of Wake Island to use the products of our factories.

Those who can speak with authority for the rubber-manufacturing industry have testified that synthetics are satisfactory for the tread and sidewall but not for the carcass of a tire. We have lately been assured that synthetics may be produced in quantity within 2 years by synthetic-rubber factories. That is a forward step, but it appears to answer only a part of the need. The stock pile of natural rubber will be gone, even with the most careful nursing, in 2 or 3 years. It behooves us to think about replenishing the supply by every possible means in

order to have the fraction of natural rubber indispensable for the manufacture of a tire that will not fail.

My colleagues, it is easy to criticize, and I know that no monuments will be built to those who ridicule the idea of putting out a relatively small insurance premium so that in case of need we can carry on with decent, dependable equipment, instead of untrustworthy, shoddy equipment. A reputable rubber chemist recently alluded to the vast plan for substitute rubber as soothing sirup. Soothing sirup, you know, allays pain and discomfort while medical skill and nature repair the damage. While it is not injurious, it does not cure. If we rely wholly on rubber substitutes that do not substitute—that do not cure, and I have yet to see a statement by a reliable authority that they do—then the soothing sirup might better be described as poison.

And while I know that no monuments will be built to the conservative Members who believe in taking out an insurance policy in the form of S. 2152, these Members will derive some self-satisfaction out of the reflection that they did not go on strike—did not sleep—they did not fail the men symbolized by the marines of Wake.

I do not say that the provisions of this bill solve the problem of rubber supplies in the hour of our Nation's need, but it does form an integral part of a solution, such as we have power to provide, and it will help us to avoid another costly mistake in the dreary procession of things that arrived too little and too late.

While I do not want to be accused of indulging in criticism at this time, I cannot help but indulge the hope that after we get out of the conflict now raging that we will change our rubber policy and encourage its production here in the Western Hemisphere—in Central and South America—and that we will continue experimenting with the guayule shrub here in the United States, ever keeping on hand sufficient seed and nursery stock. I do not know of a better way to build up trade with South and Central America than to encourage these countries in developing their rubber industry, nor do I know of a safer insurance policy for the United States to carry. This thing of depending on countries 5,000 miles away for our rubber supply is too risky.

Mr. BARDEN. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. I yield.

Mr. BARDEN. I am interested to know to what extent the committee investigated the possibility of getting rubber from South America.

Mr. FLANNAGAN. We looked into that quite carefully. We cannot get any rubber to amount to anything from South America until 1944 at best. That would be by going into the Amazon Valley, into the jungles, and tapping the native rubber tree, and the castilla tree down in Central America.

Mr. BARDEN. Where is South America now getting its rubber supply?

Mr. FLANNAGAN. The Dutch and the English have a monopoly on the world's supply of rubber today and practically all of the nations have been get-

ting their rubber supplies from the Dutch East Indies and the Malays.

Mr. BARDEN. Were we a party to the signing up of what has been termed as the "rubber cartel"?

Mr. FLANNAGAN. Well, I do not know. It is one of the biggest monopolies in the world. Probably we were guilty of signing that cartel, but I am not here arguing over policy. I am appealing to the Congress to take action now that will give us a sufficient rubber supply to keep our armies rolling.

Mr. BARDEN. Understand me, I am not interested in any criticism. I think most of the Members of the House are about in the position I am in. We simply have to do something to help out the situation, and if the committee recommends this and it is the only thing they have to recommend, what is there left for us to do? However, I am intensely interested in a thorough investigation being made of the possible sources of rubber supplies from South America. If you say the trees are growing wild they must be producing it. If they are producing it, then it must be available to somebody other than those folks.

Mr. FLANNAGAN. Very little rubber is being produced in South America today. It takes money, and real money, to go back into the jungles and tap the rubber trees. It is going to be quite expensive. Every pound of rubber that comes from that source in South America will cost us from 35 to 40 cents a pound, and if we develop that source to the fullest we cannot expect more than 100,000 tons of rubber every year.

Mr. BARDEN. What were we paying for the last rubber we got from India?

Mr. FLANNAGAN. Rubber prices for some time have been pegged at 22½ cents. Rubber for the 1930 to 1939 average was 12½ cents a pound.

Mr. BARDEN. I am still interested in the Government if it takes a subsidy to do it and it is going to cost us 30 cents a pound, I think the folks of this country would be willing to pay 8 cents additional in order to get a tire to ride on.

Mr. FLANNAGAN. I agree with the gentleman. I know the gentleman comes from a cotton State. Let me tell you what the decrease in the production of rubber is bringing about right in the cotton country. We use between a half million and a million bales of cotton in tires in America today, and it is getting so now it looks as though we are going to have to do without tires, and you will have that much more cotton left on your hands.

Mr. BARDEN. I just want to make this statement and then I am through. I think, as long as we are having these emergencies put in their appearance, it is a pretty good idea to spend some time trying to solve them, and not have any more bugaboos like Mr. Ickes pulled on us in the oil situation.

Mr. FLANNAGAN. I agree thoroughly with the gentleman.

The CHAIRMAN. The time of the gentleman from Virginia has expired.

Mr. HOPE. Mr. Chairman, I yield 5 minutes to the gentleman from California [Mr. ROLPH].

Mr. ROLPH. Mr. Chairman, on August 5, 1941, Leon Henderson, appearing

before the House Committee on Banking and Currency in connection with price control, said regarding the price of rubber:

Rubber over which we have a measure of control is only up 32 percent, but, as you know, we had to institute a savings campaign to reduce the customary use of rubber from about 85,000 tons down to 60,000 tons a month.

On the same day he advised the committee of a shortage of neoprene, which is synthetic rubber.

Ten days later, on August 15, 1941, in testifying further before the committee, Mr. Henderson spoke again about this shortage and explained in answer to a direct question that he understood \$200,000,000 had been provided by the Government for building synthetic rubber plants.

Donald M. Nelson was before the committee on September 26, 1941, and discussed briefly the question of synthetic rubber. Mr. Nelson told the committee that four plants for the production of synthetic rubber are being operated. He understood these are Goodrich, Goodyear, United States Rubber, and the Standard Oil Co. of New Jersey. He went on to say that the making of synthetic rubber is an art not so completely developed that the American manufacturers know just what to do, and he said:

Mr. Jones has, I think, quite wisely decided that the thing to do is to put up four of them, using different processes and finding out which one is the best and any one of them can be expanded at any time in case an emergency arises.

Mr. Nelson also told the committee that Du Pont produces neoprene, which is the trade name presently used for the Du Pont type of synthetic rubber, and the large rubber companies naturally want to get into the production of synthetic rubber as a source of supply. Du Pont's output is quite limited.

Mr. Nelson stated price of synthetic rubber on September 26, 1941, was about 50 cents per pound, or roughly just about twice the price of crude rubber on that day. Mr. Nelson observed:

No one knows how cheaply it (synthetic rubber) can be made when you get the right know-how and the proper set-up for doing it.

In September of last year the trade lanes to the Orient were still open; today commerce to the rubber-producing centers of Malay and Java is practically at a standstill, and while there is no use crying over spilled milk, the urge is many times more pressing today that we do something at once.

Senator SHERIDAN DOWNEY, of California, in the Senate, and Representative JOHN Z. ANDERSON, of California, in the House, have been appealing to Congress for aid to promote the production on a large scale of guayule, a rubber-bearing shrub, native of Mexico, and which has been successfully transplanted to the Big Bend country of Texas and the Salinas Valley of California.

On June 14, 1940, the Senate Committee on Military Affairs held hearings in this connection on Senator DOWNEY's bill, and then again on December 10, 1941.

In the meantime, on April 16, 1941, the gentleman from California [Mr. ANDERSON] made a most interesting and

instructive talk on the subject before the House of Representatives, so Congress is fully informed on the subject.

On November 19, 1941, a Government release had the following to say:

Guayule, a sagebrush-like Mexican shrub, could make the United States independent of foreign rubber production, the Chamber of Commerce of Salinas, Calif., informs the Work Projects Administration. As authority for this contention, the chamber refers to a report of the United States Tariff Commission on "Possibilities of Producing Rubber in the United States and Rubber Conservation." The chamber adds that cheaper rubber for many present uses can be produced from guayule. Scientists at California Institute of Technology, aided by Work Projects Administration workers, are already making additional experiments with the plant to determine its possibilities. The Work Projects Administration workers are growing 500 shrubs on a project sponsored by the botany department of the college. Seedlings for the Cal-Tech research came from a 1,000-acre experimental plantation of guayule near Salinas. The Tariff Commission report estimates that four and one-half million acres planted in guayule would, in theory, produce enough rubber after several years to meet domestic needs. For comparative purposes, the report estimates that 9,000,000 acres are planted in cotton in Texas.

December 27, 1941, the Pacific Rural Press of San Francisco had an article about guayule, and I quote part of the article, as follows:

For 15 years Salinas has been experimentally growing guayule, and is now in position to use between 25,000 and 50,000 acres of Monterey County to grow guayule, according to the estimate of A. A. Tavernetti, the farm adviser.

There is locally available sufficient seedlings to plant out 2,000 acres this spring, and 24,000 pounds of seed for further production. This seed would be sufficient to plant out seedlings on 150,000 acres in another year.

The Salinas district has grown experimentally 8,000 acres of guayule for harvest, and has counted yields up to 2,850 pounds of rubber per acre.

Mr. McGargar says his chamber of commerce cannot answer the thousands of letters which have come in asking about guayule. The United States Department of Agriculture has some literature on the subject and is hastening to get out more information.

Price Administrator Henderson has moved to peg the price of guayule rubber at not above the December 6 price.

December 10, 1941, the San Francisco Examiner said editorially, under the caption "California rubber, farmers should plant guayule":

War in the Pacific threatens America's supply of rubber and interferes with the rubber supply of the nations whose enemies are our enemies.

The rubber of commerce now comes chiefly from the Malay Islands, which are the center of the new phase of the war.

But there is a source of rubber which can be developed in California. That is the guayule plant, a Mexican shrub which produces real—not synthetic—rubber, and that plant flourishes in the Salinas Valley and in other parts of California.

Farmers in districts where this plant can be grown successfully should plant the guayule seed. Their country agricultural directors can advise on its adaptability to the local conditions.

And there should be no monopoly of the seed by anybody who thinks he has a patent on it.

Pending in Congress is a bill to stimulate this production, and this bill should now be

passed as a war measure as well as an aid to farmers.

Authorities on the rubber situation warn that there is danger to the vital rubber supply of America.

These men are experts, not faddists. They know what they are talking about. They know that guayule rubber is the real thing; that its cultivation will be an important defense measure.

California farmers and all other persons who can be of influence should carefully investigate the possibility of guayule production and plant seed where conditions are right.

California Congressmen should take a lead in pressing for the passage of the bill to make possible real production of guayule rubber in the United States.

Mr. Chairman, in advocating the passage of Senate 2152, it is not alone with the idea of the present crisis but also hoping that after the war we may be independent of foreign sources of supply of this extremely essential material. The United States would then be in the same position with regard to rubber as we are in connection with coal-tar dyes. Prior to World War No. 1 we relied entirely upon Germany. Since World War No. 1 we make dyes in this country the equal in every way to the best ever imported. Let us put ourselves in the same position as regards rubber.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield 5 minutes to the gentleman from Illinois [Mr. JOHNSON].

Mr. JOHNSON of Illinois. Mr. Chairman, about a year ago I delivered a little speech here on behalf of guayule rubber and stressed the need for its development not only to afford us an assured supply of domestic rubber but as an aid to American agriculture. Few realized at that time that we were going to be in the situation we find ourselves today where, because of war, throughout the world sea-borne commerce has become unreliable and our ordinary source of raw rubber is partially cut off and seriously threatened. We did not realize it until we found ourselves unable to buy new tires.

It has been my honor and pleasure to serve under the able leadership of the distinguished gentleman from Virginia [Mr. FLANNAGAN] who addressed us just a moment ago. He is chairman of a subcommittee which has gone into this subject very thoroughly. The Committee on Agriculture likewise has studied this guayule rubber substitute very carefully. Representatives from all the big tire companies appeared before the committee and recommended that this project be taken over and put into use. The Department of Agriculture has approved it and representatives from the Department have appeared before our committee in its behalf.

We know something about synthetic rubber, enough that it is an actuality, but there is lots we do not know. For instance, representatives of the big rubber companies advise us, through their research workers and chemists, that synthetic rubber is entirely practical and is very serviceable for the treads of tires and tanks but that natural rubber the ordinary Para rubber of commerce

is still indispensable for the side walls of the tires, for the tubes, and to impregnate the fabric that goes into the tire. So the only hope we have in sight today is that we may find some way to develop synthetic and guayule rubber in this country.

The distinguished chairman of my committee and I quite agree on some other things. More than once he has told us, for instance, of the possibility of using cotton in the manufacture of paper. Until very recently we have been importing 50 percent of the pulp we use in paper manufacture in this country. If we would use 5 percent cotton fiber in the manufacture of paper, and this is something I am very much in favor of, it would use 4,000,000 bales of southern cotton annually and add very little to the cost of the paper. But getting back to the subject of synthetic rubber.

We have different sources of synthetic rubber. One is petroleum, and rubber is being manufactured on a small scale now from petroleum and crude oil products but the cost runs around 50 or 60 cents a pound. Another source of synthetic rubber is grain. Two different schools are working on this latter problem. Professor Christiansen of the University of Nebraska in collaboration with other scientists from other universities is working on it and also our own research laboratory in Peoria, Ill., is investigating this field as a further use of American grains. Let me call attention to a statement made by Fulton Lewis, Jr., last night in a broadcast over the Mutual network. These are his words:

Alcohol can be made from wheat and corn of which we have a surplus of about one and a half billion bushels hanging over the head of the farmer. The liquor industry says it is entirely practical. The Government, instead, is tying up about 1,200,000 tons of sugar to be made into alcohol by the industrial alcohol plants of the country; and the issue is whether alcohol is to be made from grain, of which we have a tremendous surplus, or from sugar, in which we are short.

I wish you could see those corn bins out through the Middle West. You go through town after town and see these great galvanized tanks holding 1,000 bushels apiece. All this corn has to be worked over and changed from tank to tank to save it from insects and pests, when now it could be used so easily for alcohol.

Mr. WOODRUFF of Michigan. Mr. Chairman, will the gentleman yield?

Mr. JOHNSON of Illinois. I yield.

Mr. WOODRUFF of Michigan. Would the gentleman tell the committee whether it has come to his attention that there are something like 150,000,000 bushels of wheat in storage in this country today that must be moved before the coming crop can be taken care of properly?

Mr. JOHNSON of Illinois. It has all got to be moved and turned over; that is right.

Mr. WOODRUFF of Michigan. And the wheat is just as valuable for the manufacture of alcohol as is sugar; and that applies as well to corn, and many other farm products.

Mr. JOHNSON of Illinois. That is right.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield 2 minutes to the gentleman from Colorado [Mr. CHENOWETH].

Mr. CHENOWETH. Mr. Chairman, I am for this bill and I wish to congratulate the gentleman from California [Mr. ANDERSON] for the diligence which he has shown and the study which he has made with reference to the matter of guayule rubber. It does not require any great stretch of the imagination to see that we are going to have to do something in this country to produce our own rubber. If we are going to have our rubber supply from the rest of the world cut off, we will have to raise it here at home.

It has been said that the guayule plant offered the best possibilities. I am not an expert on rubber and I do not pretend to be an authority on this subject, but from all the evidence which has been presented I am convinced that the guayule plant can be cultivated in this country, to the end that a considerable amount of rubber can be obtained. I first heard of this plant last summer when I received a letter from one of our prominent citizens of Colorado, Mr. Jesse G. Northcutt, of Denver, calling my attention to the fact that he had just been to California and had seen the experiments being conducted there with the guayule plant. He suggested that southern Colorado had the climate and the soil conditions which would be favorable to the growing of the guayule plant and offered the use of his own land on which to make the experiment. He mentioned the name of Mr. ANDERSON as being interested in this subject, and on my return to Washington I immediately got in touch with the gentleman from California [Mr. ANDERSON] and found him very cooperative. He gave me a great deal of very valuable information on the subject.

The people of Colorado, and I mention southern Colorado particularly because the climatic conditions and soil conditions are perhaps a little more favorable there than in other parts of the State, are very much interested in getting some of these plants so that they might carry on this experiment. We can offer both irrigated and dry lands. I sincerely hope that the Department of Agriculture will make guayule plants available to some of our Colorado farmers.

[Here the gavel fell.]

Mr. FULMER. Mr. Chairman, I yield 2 minutes to the gentleman from Arizona [Mr. MURDOCK].

Mr. MURDOCK. Mr. Chairman, I am wholeheartedly for this bill because I believe it will not only furnish us with a part of the vital rubber that we need in this emergency but will be the start of a home industry which we should have started many years ago. I have been told about 20 years ago more guayule was growing wild in southern Arizona than in any other State of this Union and that several industrial leaders of Arizona agreed with Thomas Edison at the time that it was possible to obtain rubber from more than one variety of desert growth throughout our Southwest. A consider-

able acreage of guayule was successfully cultivated in Arizona between Tuscon and Nogales at that time. It has been grown successfully in at least four States in the Southwest.

I believe that if we do produce rubber now, as this bill contemplates, and as it has been done, it will be the beginning of a wider production in days of peace, even though we may have the competition of the cheap rubber from the East Indies. We should explore every possibility of seeding the desert with guayule in its natural habitat, as well as its artificial cultivation. There is a vast region lying west of the great bend of the Missouri River that was once called the Great American Desert. It has now been transformed into a dozen commonwealths. It is no longer a desert fit only for Indians and buffaloes but the home of many prosperous American farmers and citizens. Even so, it is America's vast reservoir of untouched natural resources for vitally needed raw materials.

Mr. Chairman, if we can make use of this and other desert plants, we can build up a home industry which will make this country self-sufficient in time of peace as well as in time of war. Again I wish to congratulate the gentleman from California [Mr. ANDERSON] for bringing this to our attention and for conducting the bill so successfully up to this point. I trust it will be enacted into law.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield 3 minutes to the gentleman from Nebraska [Mr. CURTIS].

Mr. CURTIS. Mr. Chairman, without doubt it is wise that we pursue every angle that might relieve the rubber shortage, not only for the purpose of our national defense but in the interest of our domestic economy. I am thinking particularly of those tire dealers and garagemen in the great cities, small towns, and even at the crossroads filling stations who are facing a very grave problem because of this rubber shortage.

We cannot turn the calendar back. As we look upon the mistakes that perhaps all of the American people are guilty of, we find we are in a situation that is not pleasant. Nothing is to be gained by calling each other names. On the other hand, we would be fools indeed if we did not try to gather a lesson from the mistakes of the past. So far as our future conduct is concerned, there are two or three very fundamental principles we will adhere to if we are wise. One is that we should strive for greater use of agricultural products and not a lesser use.

Synthetic rubber can be made from many agricultural products, and it can be made economically. It can be made from corn and wheat for as little as 15 cents a pound. Rather than Congress adopting policies that are going to make it more profitable to put farm products in storage than to use them, Congress should work toward measures which will call for a greater use of farm crops. We should strive to a greater use of farm products and not a lesser use.

Another general principle that we should give consideration to in the future is this: The American market belongs to the American farmer, and that includes

the farm products from which we can make industrial alcohol, synthetic rubber, and other industrial products.

The third principle that should guide us is that the doctrine of plenty is better than the doctrine of scarcity, whether it be farm crops, sugar, steel, aluminum, rubber, or what not.

Mr. WOODRUFF of Michigan. Will the gentleman yield?

Mr. CURTIS. I yield to the gentleman from Michigan.

Mr. WOODRUFF of Michigan. The gentleman understands, does he not, that the scientists who know about these things say that from a bushel of corn or from a bushel of wheat there can be made 10 pounds of the finest synthetic rubber that can be manufactured?

Mr. CURTIS. That is very true. One of the outstanding authorities on synthetic rubber is our own Dr. Leo M. Christensen, of the University of Nebraska. He has carried on experiments that have been aided by the Legislature of the State of Nebraska. If given a break by the rationing authorities for machinery necessary for new plants, farm chemurgy can make a great contribution to both our domestic economy and our war effort.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield 5 minutes to the gentleman from Michigan [Mr. CRAWFORD].

Mr. CRAWFORD. Mr. Chairman, I do not wish to throw any cold water on this proposition. What I have to say is not intended for that purpose. At the same time, I do not feel I should sit here and let my district gather the idea from this debate that we are going to soon have a big production of rubber from this guayule plant. In my opinion, it will be 20 years before you get any satisfactory results from a movement of this kind, if you are to depend upon the Department of Agriculture for your rubber results.

I was very much interested in what the chairman of the Committee on Rules had to say a while ago. I tried to draw him out, or in plain language, pin him down, so that I might use his position in talking about some of these matters in the future.

You are dealing here with a proposition which will have to have tariff protection before it ever gets anywhere. You are dealing with a product which will have to buck the combined resources of the rubber trust of the world and of the second rubber trust we are creating through appropriating \$400,000,000 to start the production of rubber from oil products.

We have gone through an experience in the last 7 or 8 or 9 years where the administration has held a constant muzzle on this thing I am going to mention, and it is parallel with the case with which you are dealing here today. If you will take the February 3 issue of Victory and turn to page 12 you will find this interesting language. There are five headings on these two pages which have to deal with this strategic commodity I am about to mention.

Sugar isn't needed just for food and energy; sugar is today a weapon of war because

it is needed to make industrial alcohol for the production of smokeless powder.

There is a product—sugar—as essential in carrying on war as is rubber in carrying on our domestic and war economy today, and I do not think anybody in this House will attempt to refute that statement. But will you show me where I can go out and get a permit to use my own private funds and build a plant even to produce sugar, to say nothing about weaving my way through the intricate web of finance, blockades, and so forth, that would prevent me from building a plant to produce synthetic rubber from the guayule plant? I am just not going to be kidded about this at all. Go along with the crowd, support the bill, and further emphasize the necessity of producing rubber, of course, because of our peacetime and military economy; but do not get the idea that you are going to have warehouses full of rubber cut of the guayule plant in a few months. It is not going to happen.

Mr. WOODRUFF of Michigan. Mr. Chairman, will the gentleman yield?

Mr. CRAWFORD. I yield to the gentleman from Michigan.

Mr. WOODRUFF of Michigan. Does the gentleman have in mind as he makes the statement the \$400,000,000 that Mr. Jesse Jones says is available for the production of synthetic rubber in this country?

Mr. CRAWFORD. Yes.

Mr. WOODRUFF of Michigan. I suppose the gentleman referred also to the difficulties a man or a group of men attempting to engage in this particular commercial activity would have if they attempted to finance such things in the markets of the world?

Mr. CRAWFORD. That is correct. Take the statement of your Assistant Attorney General, Mr. Thurman Arnold, and inform yourselves of what is going on in this country today, not last year, and not 3 years ago, but today. Read what he said before one of the committees the other day; about how these combinations are preventing the production of these substitute products, and see how he is muzzled by the opposition of the defense-production authorities in prosecuting these combinations and thus trying to bring about more production. We might just as well get wise ourselves. Whatever we do, let us not mislead our people at home. Let us build these domestic industries if we can, and build them with private capital, but at the same time we are promoting these new ones let us make sure that the ones that have been established for over a quarter of a century are permitted to live.

What are you going to do about this South American economy, for instance? Suppose the South American countries, through our giving them the risk capital, come into the production of natural rubber? Then what will you do with the "rubber doll" we are handing to California today?

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I yield my remaining time to the gentleman from Texas [Mr. THOMASON].

Mr. THOMASON. Mr. Chairman, I think there is little that can be added to

the very able presentation made by the gentleman from California [Mr. ANDERSON]. I have been interested for a good long while in the development of the guayule plant. Since I found out about 6 months ago that the gentleman from California had such a wide knowledge of the subject, I have been consulting and cooperating with him in the furtherance of this legislation. This bill is at least a step in the right direction.

It so happens that I come from El Paso, down on the Mexican border, in a more or less arid country similar to that represented by my friends the gentleman from Arizona [Mr. MURDOCK] and the gentleman from New Mexico [Mr. ANDERSON]. I believe the experts have claimed that perhaps that is the only section of the United States where the guayule plant grows wild. This is particularly true in what is known as the Big Bend country of Texas.

I recall distinctly that a little more than 20 years ago—to be exact, in 1909 and 1910—a factory was built at Marathon, Tex., in the congressional district which I have the honor to represent, and it operated for about 9 months. It milled 4,000 tons of this shrub, which yielded 600 tons of crude rubber. Guayule grows wild in nearly all the counties of my district. The climate and soil are especially suited to its propagation.

The shrub in the Marathon locality was soon exhausted, and because of very large importations of raw rubber from the Far East the price became so low the factory had to close down.

The rubber situation is critical. We need to develop our own natural resources. If this bill becomes law, I shall urge that some of this seed be used in west Texas, and later that a factory be erected in that section to process the guayule into rubber.

I sought and obtained permission from the House before the beginning of the general debate on this bill for the inclusion in my remarks of a statement by Mr. C. L. Chapin, who resides in Washington, and who had charge of the Marathon plant, and who also resided in Mexico for a good long while in connection with the guayule production. He is much more familiar with the conditions in that section than I, and I invite a careful reading of his statement.

I agree with the remarks just made by the gentleman from Michigan [Mr. CRAWFORD] that we are not going to have a lot of rubber developed from guayule overnight or in 6 months or 12 months, but probably it will be 2 or 3 years. I feel this way about the matter: The situation is so very critical and the military outlook is so black in the Far East that, regardless of what happens there, it behooves us to exhaust every possible means of research toward the development of rubber in our own country.

I am sympathetic with the problem of developing synthetic rubber, but guayule has been proven successful, not only by the experts in the Department of Agriculture and in the Bureau of Standards, but it has been proven and admitted, as I understand it, by the gentleman from California [Mr. ANDERSON] and likewise the gentleman from Ohio [Mr. HARTER],

who comes from a great rubber manufacturing city, that the big companies, perhaps, like Goodyear and Firestone, have used guayule with great success. The trouble is the shortage of supply. The thing to do is to develop it in such quantities that we will not be dependent on the Far East. The gentleman from Virginia [Mr. FLANNAGAN] admits there is no hope of getting rubber in large quantities from South America for several years.

I hold no brief for this Intercontinental Co. I never heard of them until this legislation was initiated. I have had no one representing them to ever speak to me about it, but I understand upon reliable authority, that this is the only company in our country that has any supply of choice seed. Seeding and planting time is only a month or two away, and we should act promptly. I trust the representatives of the Government to see to it that the seed is bought at a fair price.

Mr. DOUGHTON. Mr. Chairman, will the gentleman yield?

Mr. THOMASON. Just let me make one further point and then I shall yield to the gentleman from North Carolina.

It must not be forgotten that the rubber trees and industry in the Far East, if they have not been destroyed now, it is safe to predict it soon will be destroyed, especially if the Japs take Singapore. Then you will have no rubber to come from the Far East in several years, regardless of who may win the struggle over there.

I now yield to the gentleman from North Carolina.

Mr. DOUGHTON. The gentleman's statement is very interesting, and if he has the information, will he give the House the benefit of it by stating how long would be required to produce an adequate supply of rubber from this product?

Mr. THOMASON. I could not say how long it would take, but I would say that that would be a matter of at least 2 or 3 years. It can be produced in paying quantities in 3 or 4 years. But we must make the start and the sooner the better.

Mr. DOUGHTON. And every ounce would be helpful.

Mr. THOMASON. Of course, and it behooves us to resort to every means possible to obtain rubber in this country, and at the earliest possible date. As tragic as this war is, perhaps some good will come out of it. Our chemists and research experts are now busy trying to develop in our own country many of the necessities of life, so that in the long, hard days to come we will not be dependent upon importations from foreign countries. Most of our people, and especially our Army, are now riding on rubber. Rubber is one of our greatest necessities. I urge the passage of this bill, so that the work can get under headway.

GUAYULE RUBBER

(By C. L. Chapin, of Washington, D. C.)

Commercial production of guayule rubber began about the year 1904. It comes from a desert shrub (*Parthenium argentatum*), in appearance and size somewhat resembling the familiar sagebrush of the western plains. The shrub grows wild in the plateau region of northern Mexico and in the Big Bend sec-

tion of Texas. Search over the entire world wherever conditions were somewhat similar failed to discover the plant anywhere else.

Most of our rubber, both wild and cultivated, is made from the sap of the Hevea rubber tree, the sap being chemically treated to turn it into rubber. Guayule rubber, on the other hand, exists as tiny particles of rubber in the bark and outer wood of the guayule plant. To produce crude guayule rubber it is, therefore, only necessary to grind or pulverize the plant, and then by mechanical processes separate the rubber from the wood, bark, and leaves.

Crude guayule rubber as it comes from the factories in Mexico sells in the New York market at present for about one-half the price of the best crude rubber—Upriver Fine Para, the wild rubber from Brazil—and for about 65 percent of the price of Plantation Crepe, the cultivated rubber from Malaya, which now comprises all but a very small fraction of the rubber used in the United States. (On July 29, 1941, prices in the New York City rubber market were: Upriver Fine Para, 30 cents per pound; No. 1 Thin Latex Crepe, 23½ cents per pound; guayule, 15½ cents per pound.)

The market price is a fair approximation of the relative qualities of these three varieties of rubber. Guayule rubber is not used in products where the very highest qualities of strength, elasticity, and durability are essential, as in surgical rubber goods and inner tubes for automobile tires, for instance.

However, guayule rubber is not being used where the requirements are most exacting, mainly because it would cost more to treat the guayule rubber so as to give it those higher qualities. Tests have been conducted by the Bureau of Standards which showed that after being treated in certain ways guayule rubber was equal in practically every respect to the best rubber on the market.

As a practical matter, therefore, guayule rubber could be so processed that it would serve every purpose acceptably; and if the supply were great enough, and the price permitted, the development of large-scale processing methods would tend to decrease very materially the cost of such operations.

In 1900, when the amount of rubber which was used by the automobile industry was negligible, the net importations of crude rubber into the United States amounted to 20,308 long tons.

That was the year in which cultivated plantation rubber from Malaya first appeared in the market. Previous to that time all rubber was from wild trees, principally from Brazil.

About 1904 guayule rubber began to appear in the market, and by 1910 this rubber had become an important factor in rubber-goods manufacturing in the United States.

By 1910 the automobile industry had begun to use a large part of the rubber coming to the United States, and in that year the net importations were 42,210 long tons. In 1910, 4,762 tons of guayule rubber was imported, this product thus making up 11 percent of the crude rubber used in the United States. The importations of plantation rubber in that year were 11,000 tons.

The year 1911 marked the high tide of guayule rubber importation, when 7,437 tons came into the country. As the total rubber importations in that year fell to 34,464 tons, guayule rubber made up 21 percent of the importations. The decline in importations of guayule rubber after 1911 was due to the dwindling supply of the wild shrub throughout Mexico and in part to political disturbances in that country which made industrial operations difficult and at times impossible.

As the total importations of rubber of all kinds increased the price per pound gradually went down. In 1910, when the larger part of our best rubber was still coming from Brazil, the price of up-river para rubber was around \$2 per pound. Guayule rubber in that year sold at around 53 cents per pound.

About 1915 importations from the plantations of Malaya began to equal the importations of wild rubber from Brazil. Thereafter plantation rubber continued to crowd out the South American wild rubber, in spite of the fact that it was and continues to be inferior in some characteristics to the wild rubber from Brazil. By 1938, 97 percent of our imports were of plantation rubber.

Importations of guayule rubber have declined from the high mark of 1911, and from 1928 to the present time have averaged around 2,300 tons per year, reaching 3,634 tons in 1940, however.

Meanwhile, the total importations of rubber have gone steadily upward, until in 1940 our net importations were in excess of 600,000 long tons. In that year importations of guayule rubber amounted to about one-half of 1 percent of our total importations.

The only locality in the United States where the guayule plant has grown in the wild state is the Big Bend country in southwestern Texas. There in 1909-10 a factory located at Marathon operated for about 9 months, milling 4,000 tons of shrub, which yielded about 600 tons of crude rubber. The shrub supply was exhausted in that time.

The wild shrub was found in scattered spots over most of Brewster County, and in Pecos County, east of Fort Stockton.

It is in the latter locality that the writer believes the most favorable conditions exist for a large-scale undertaking in the cultivation of the guayule plant. The climate and soil are exactly suited to the plant, as evidenced by the natural selection of that area by the wild growth. This would make unnecessary any acclimating or adapting the cultivated plants to climatic and soil conditions.

There is a large area of land now under irrigation in the immediate vicinity of land on which the best yield of wild guayule formerly grew. The writer had charge of the field work when the factory at Marathon was in operation and arranged for the gathering and transporting of the shrub to the factory. This writer personally established a gathering camp in the midst of guayule fields which are within a quarter of a mile of lands since brought under irrigation, at the base of Seven Mile Hill east of Fort Stockton. Undoubtedly it would be possible to find some regrowth of guayule on that very land today.

Inasmuch as the wild shrub which was milled in Texas was found to yield a slightly higher percentage of rubber than was ordinarily procured from the shrub milled in the various factories in Mexico, it is evident that the Big Bend section of Texas is eminently suited to the plant and that nowhere else could it be reasonably certain that equally good results might be obtained.

The writer was employed in the guayule rubber industry in Mexico from the time it began to assume important proportions there. His experience included scouting shrub-bearing areas to estimate the amount of shrub which could be gathered from large land holdings; contracting with landowners for the purchase of shrub growing on their properties; employing and supervising contractors to gather, haul, and ship the shrub to the factory; as well as actual work in every department of the largest guayule factory in Mexico. This experience, in addition to his experience and knowledge of that part of the guayule rubber industry which existed in Texas, qualifies him to express an opinion regarding the proposal to set up a guayule-growing business in the United States.

The recommendation is respectfully urged that, should such an undertaking be made, a considerable part, if not all, of the activity should be carried on in the only natural habitat of the guayule plant—the Big Bend section of Texas.

It is suggested that the proposed Federal guayule rubber corporation might well be

authorized to go beyond the authorization contained in section 5 of H. R. 5030. Farmers owning or cultivating lands in areas suited to the growing of guayule might be encouraged to undertake growing the plant as a regular crop. This could be done by contracting with them to purchase shrub grown by them, and by furnishing to them guidance in the best methods of planting and cultivation, in addition to furnishing seed or seedlings for field planting. Small factories might be established for milling shrub grown by farmers, each factory serving an area to provide easy transportation of the gathered shrub.

Mr. FULMER. Mr. Chairman, I yield the balance of the time to the gentleman from Michigan [Mr. Hook].

Mr. HOOK. Mr. Chairman, we studied in the committee with much interest the rubber situation, and I reserved the right to oppose this bill on the floor, if necessary, for the reason that I was told there was a cartel between Great Britain, the Netherlands, and Malaya that practically kept out of this country the rubber that was produced in Brazil. I find that there was a cartel there, but that Brazil only produced about 42,000 tons of rubber, whereas there was produced or received from the Netherlands, Ceylon, India, Burma, North Borneo, and Sarawak 1,563,000 long tons. So, even with the best efforts of Brazil, and after she reached her peak, she could only produce 42,000 tons; and therefore it is absolutely necessary, especially in this war situation, that we reach out and grasp every single, solitary thing that we can in order to take care of this rubber situation.

We in Michigan are very vitally interested in this, because the automobile industry, which is our greatest industry, rests upon a sufficient production of rubber. I believe, after thorough and complete study of this whole situation, that guayule plant is about the only place where we in the United States can reach out after any kind of help. The guayule plant has been grown in Mexico, and we have used quite a little of the product of that plant that has come from Mexico. They have been raising it there for the last 40 years. If they can raise it successfully and profitably, then why should not we go into the production of rubber, at least as a matter of protection? We are in hopes that the situation as it exists in the Far East will be taken care of. We are in hopes—and I feel that we have high hopes—that the situation will right itself to the point where after the war we will be back again to 10-cent rubber; but if these fields in the Far East are destroyed, we will never again be back to 10-cent rubber, and our only salvation is to turn to this guayule plant and the propagation of synthetic rubber. We expect to resume the manufacturing of automobiles as soon as we win the present war. I hope it will be soon, but at least, in the meantime, let us grow this rubber plant and hope that it will bring about a production of rubber to such an extent that the great automobile industry will be able to operate again in the interest of this Nation; also, that we produce enough rubber to keep our armies and Navy supplied so that they may operate successfully and win this war. Let us do all we can to win the war. We need this

bill because rubber is vital to the successful termination of this war.

The CHAIRMAN. The time of the gentleman from Michigan has expired. All time has expired. The Clerk will read.

The Clerk read as follows:

Be it enacted, etc., That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, or by condemnation, the right to operate under processes or patents relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation;

(2) To plant, or contract for the planting of, not in excess of 75,000 acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment and facilities;

(3) To acquire by purchase, lease, or other agreement, or by condemnation, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies of areas in the Western Hemisphere, where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of 75,000 acres of guayule inside the Western Hemisphere; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule.

The CHAIRMAN. The Clerk will report the first committee amendment.

The Clerk read as follows:

Page 1, line 6, strike out the words "or by condemnation."

Mr. COCHRAN. Mr. Chairman, I rise in opposition to the amendment. I am not going to place myself in the position of opposing this bill, but I do feel that the House should pay special attention to the language in the bill, and if we are going to pass it, we should perfect the language. There is no use of our passing legislation worded such as this is when we can pass a bill that will

stand up and to some extent protect the Treasury of the United States. In the first committee amendment on page 1, line 6, the committee has recommended that the words "or by condemnation" be stricken out. The paragraph provides that we shall acquire by purchase, license, or other agreement, or by condemnation, and so forth, the right to operate processes or patents, and so forth. However, the committee undertakes to strike out the words "or by condemnation." Are you going to deny to the Government of the United States the right to condemn property? Even if you do I feel it would be unconstitutional. Suppose you pick an area, and that within that area there is land that the Government must have, that belongs to two or three individuals, and they want the Government to pay an exorbitant price for that land, exorbitant, I say, because the surrounding owners are willing to sell it at a reasonable rate. Is it wrong to let the Government condemn that property, and pay a reasonable figure within keeping of the value of the adjoining property?

Mr. NICHOLS. Mr. Chairman, will the gentleman yield?

Mr. COCHRAN. Yes.

Mr. NICHOLS. Further down in the second paragraph there is a provision that there shall not be paid in excess of \$2,000,000. Even if the words "or by condemnation" be left in the bill, under the provisions of this act they could not pay more than \$2,000,000 anyway?

Mr. COCHRAN. Absolutely not, but, on the other hand, if that corporation demands a price which the Department of Agriculture feels is not justified, then the Government can condemn the property and assets, thus protecting the Government.

Mr. NICHOLS. The only reason I ask the question is because the gentlemen who sponsor striking out the words declare they want them stricken out to save the Government money.

Mr. COCHRAN. I am not in favor of that. I am in favor of the Government having the right to condemn property if necessary.

Mr. CRAWFORD. Mr. Chairman, will the gentleman yield?

Mr. COCHRAN. Yes.

Mr. CRAWFORD. In further support of what the gentleman says, have we not heretofore given the right to the Government to condemn other property in connection with the war effort?

Mr. COCHRAN. Yes. And I might say, if necessary for national defense purposes, the President can take any property.

Mr. CRAWFORD. And are we not putting through now a second war-powers bill that will extend these rights, and why make this an exception?

Mr. COCHRAN. Absolutely. If this amendment should be agreed to, I shall move, when the time comes, in line 21, page 2, to restore the language "or by condemnation" at that point. I do not see any reason why the committee should deny the Government opportunity to secure property at a reasonable figure by condemnation. We do that with private

citizens all over the United States, and why not do it in this instance?

Mr. WHITTINGTON. Mr. Chairman, I move to strike out the last word.

Mr. Chairman, I am greatly in sympathy with the purposes of this bill. What I shall have to say is intended to be helpful and constructive.

I have glanced over the hearings. I think the chairman of the subcommittee, the distinguished gentleman from Virginia [Mr. FLANNAGAN], is to be commended upon his diligence in undertaking to ascertain the value of the property owned by this Intercontinental Rubber Co. I want to say that I favor the retention of the condemnation provision in this bill. I think it is essential to protect the Government. I may add that that provision for condemnation was in the bill when introduced by the gentleman from California [Mr. ANDERSON]. He favors it being retained in the bill. It was in the bill when it was referred to the Department of Agriculture and reported on favorably by that Department. It was in the bill when it was approved by the Bureau of the Budget, and it should stay in the bill. I see no contradiction between that and the second committee amendment, which limits payment to this corporation to not over \$2,000,000. In a word, I think the retention of the language for condemnation will further safeguard the Government.

Mr. COCHRAN. And it was in the bill when it passed the Senate also.

Mr. WHITTINGTON. Yes. Now, Mr. Chairman, I have, as I have stated, glanced through the hearings. The stock of this corporation is owned by citizens of the Netherlands Government. The stock of this corporation is owned by people of another country. The undisputed testimony is that the value of the tangible property that we would get from that corporation, as stated frankly by the gentleman from Virginia [Mr. FLANNAGAN], is less than a million dollars. When the representative of that corporation was before the Committee on Agriculture, and in response to a question by the gentleman from Virginia [Mr. FLANNAGAN], he stated, and I quote from page 74 of the hearings, "No good will, nothing for patents or good will," was included.

Under the terms of this bill in the second committee amendment it is provided for the purchase of patents; the official of that company said they had no patents; they had no processes, as shown by page 97 of the hearings. With all due deference to the committee, I can understand their purpose. The committee evidently thought it would be to the interest of the Government if they could acquire this property for not to exceed \$2,000,000. I put this question to you: If in every bill that the Congress of the United States has passed to provide for the acquiring of property for national defense, owned by citizens of the Republic, to safeguard the interests of the United States we have written the power of condemnation, why should we now in the only bill that has been brought to our attention, when we are told in advance that the \$2,000,000 is more than twice the value of the property, deprive the Secre-

tary of Agriculture and the Government of the United States of the right to condemn property that belongs to the Dutch, who have a practical monopoly on rubber in the East Indies, a product to which we will probably be denied access, and thus give a foreigner a right that an American citizen does not have? When you tell me that they may go into court and get more than they could get by agreement or purchase, I respond to you that I do not believe citizens of the Republic will give more to people of other governments than they give to citizens of the United States.

In an effort to promote the very purpose that this committee had in mind, I suggest to the committee that the power of condemnation be retained, even though you adopt the second committee amendment. I trust that this committee amendment will be defeated.

[Here the gavel fell.]

Mr. POAGE. Mr. Chairman, I rise in support of the amendment and I ask unanimous consent to proceed for 5 minutes out of order.

The CHAIRMAN. Without objection, it is so ordered.

There was no objection.

Mr. POAGE. Mr. Chairman, it was my privilege to serve on the subcommittee that worked for several days considering, in executive sessions, the various factors involved in the purchase of this property. I think there was an especially sincere effort made to bring the amount of money that might be paid to these people who own all of the guayule seed in the world down to the smallest possible figure, and the committee acted in full knowledge of what they were doing when they suggested striking out the provision to condemn the property. The reason for that is simple and to my mind it is convincing. The company can show that they have over a period of years invested \$3,800,000 in this property. I do not mean by that to say that they can show it is now presently worth that, but they can show that they have put nearly \$4,000,000 into it. They asked \$2,600,000 for all their United States holdings including certain property in Arizona which we felt was of no value from the standpoint of the use which we intended to make of it. The committee felt that if we were sure that the property could not cost the Government more than \$2,000,000, we would be saving money for the Government rather than allowing the company to go into court and probably get a judgment for \$3,800,000 or more. The committee is of the opinion that there is a saving to the Government of approximately \$2,000,000 by keeping this provision in the bill. There is not any doubt but what if you place the company in a position to demand condemnation proceedings, that condemnation will be resorted to.

Mr. COFFEE of Nebraska. Mr. Chairman, will the gentleman yield?

Mr. POAGE. I yield.

Mr. COFFEE of Nebraska. Is it not a fact that the company wants this condemnation provision in the bill?

Mr. POAGE. Absolutely. The company would prefer to have condemnation provided for in the bill, because the company would then be in a position to force

the Government to go into the courts, for they know that in the courts in California they can show they have nearly twice this amount of money invested and they would probably get it.

Mr. NICHOLS. Mr. Chairman, will the gentleman yield?

Mr. POAGE. I yield.

Mr. NICHOLS. I would like to ask the gentleman if the closing portion of subsection (1) reading "the Secretary is authorized to pay not to exceed \$2,000,000" will not place a limitation upon the amount of money that could be paid even if condemnation were resorted to?

Mr. POAGE. We do not think so because if the judgment of the court is that we are to pay them \$4,000,000, the gentleman knows the disposition of this Congress would be to do it. We in the committee do not feel that is any limitation, for the gentleman knows as well as I do that a private bill would be introduced for the amount of the judgment exceeding the limitation.

Mr. NICHOLS. The gentleman does not mean to say that he thinks an order of the Federal court would supersede a limitation placed by the Congress upon the purchase price of anything; does he?

Mr. POAGE. I do not say it would supersede it, but I think, as I said before, a bill would be introduced to pay the company the difference; and the gentleman and the rest of the Members would pass it and the Government would pay the amount.

Mr. WHITTINGTON. Mr. Chairman, will the gentleman yield?

Mr. POAGE. I yield.

Mr. WHITTINGTON. The gentleman spoke of this corporation going into court. Is it not a fact that the only party who could go into court would be the United States of America?

Mr. POAGE. That is right, but the Government would be forced to resort to exactly that procedure.

Mr. WHITTINGTON. And if they were unable in negotiating for the purchase of the property to agree upon the value of the property, is it not true that upon filing of an application for condemnation in a Federal court the Government of the United States could take possession of the property the next day and go through every court in the country to see that its rights are protected?

Mr. POAGE. Nobody questions the Government's right to do that.

Mr. WHITTINGTON. I beg the gentleman's pardon. I understood the gentleman to say the company could go into court and ask for condemnation. The only person who can ask for condemnation is the Government of the United States.

Mr. POAGE. The gentleman must have misunderstood my last statement. Condemnation would be brought by the Government. All the company has got to do is to sit back and insist on receiving its \$4,000,000. The company does not have to do anything about initiating condemnation, but certainly would be in a position to force it. The minute the Government takes it into court the company would proceed to establish the value it placed on the property. No one questions the right of the Government to condemn

in the absence of this committee amendment. The company would like to get rid of this property. The company may have put an inflated value on it to place themselves in a favorable trading position. We want to put the Government in the more favorable trading position, and the only way we can put the Government in a more favorable trading position is to put the company out of a position where they can demand more than \$2,000,000.

Mr. WHITTINGTON. And if the gentleman will yield further, I answer him by saying that the only way to put the Government in a favorable trading position is to give them the right to condemn.

Mr. POAGE. It does not put the Government in a favorable trading position to include the power of condemnation in this bill, because all the company would have to do then would be to sit back and say they would not accept \$2,000,000. Those people who built up this big company, whether they be citizens of Holland or citizens of the United States, have sense enough to know their rights.

The gentleman has tried to inject prejudice against aliens into this discussion and has suggested that because 62 percent of this stock is owned by citizens of the Netherlands we should work some kind of harsh bargain on them. But this is an American corporation organized under the laws of New York State created by American citizens originally. The officers are Americans. Certainly the gentleman would not suggest that our courts should give a different measure of value because, perchance, some of the stock of that company is owned by our Allies, who are doing so much to protect our interests in the Far East today.

Mr. CRAWFORD. Mr. Chairman, will the gentleman yield?

Mr. POAGE. I yield.

Mr. CRAWFORD. Is the gentleman from Texas satisfied that this company has invested \$3,600,000 in this property?

Mr. POAGE. Yes; I am perfectly satisfied they have sunk that much money, although I am not satisfied they have that much in their assets. The assets of this company now are primarily represented not by intangibles, as so many have so inaccurately said, but by the very tangible amount of 23,000 pounds of guayule seed, the only guayule seed in the world. The gentleman from Virginia [Mr. FLANNAGAN], who so well explained the bill did not list the 23,000 pounds of seed as tangibles, but to my mind it is the most valuable asset the company has.

To my mind that is just as much of a tangible asset as any of the land or any of the equipment. That 23,000 pounds of seed is something you can lay your hands on, something you can look at, something that has the germ of life, something that is able to reproduce the guayule plants. That 23,000 pounds of seed represents an expenditure that this company has made over a period of 31 years. That 23,000 pounds of seed is where your so-called intangibles have gone, the tangible representation of the work, of the experiments, and of the research that this company has carried on, and it is that 23,000 pounds of seed that this Government must have today if it is to have the insurance that this pro-

poses to give us. For one I do not like to take the responsibility of saying that I will let this country run the risk of going without rubber and of making no provision to put this seed in the ground.

[Here the gavel fell.]

Mr. HOPE. Mr. Chairman, I move to strike out the last word.

Mr. Chairman, perhaps it does not make a great deal of difference whether we adopt the committee amendment. However, there is one situation that we must consider, and that is the matter of time. Unless we pass this bill, and unless the Department of Agriculture acts on it before the first of March, and takes over this guayule seed, we are going to lose a year's time. The vital, significant question before us today is whether or not we are going to permit the Department of Agriculture to take over this seed in time to plant it in the nurseries by next month. Unless we do that we are not going to have production of rubber from this plant in 1946, as far away as that seems. It will be 1947 unless we can take some action immediately.

I am of the same opinion as other members of the committee that we may pay more for this property if we condemn it than if we negotiate for its purchase as provided in the bill. It is true that the Government could exercise its right to condemn and possibly take over this seed without awaiting termination of court proceedings, but that is not the only thing that we have to get from this company. We have to get from the company certain processes, certain methods that are known only to this company and its employees. One of the most important of those is the process by which guayule seed can be sprouted. The guayule is a desert plant and, like other desert plants, the seeds may lie dormant for 2, 3, or 4 years until favorable conditions arise for sprouting.

It so happens, however, that the scientists employed by this company have found a way in which to sprout this seed, and unless we can get the seed and learn the method by which it may be planted and germinated this March, we are going to lose a year's time. That knowledge and information is one thing we are getting when we make a deal with this company. The other important thing we are getting is 23,000 pounds of guayule seed. I do not know how anybody can put a value in dollars and cents on that seed. If it were all the rubber-producing seed in the world it would be priceless.

Two million dollars may be a large sum to pay for this seed and for the physical property worth something less than a million dollars which we are getting, but in a critical time like this when the matter of getting rubber is one of our most vital and fundamental military problems, I do not believe we should quibble about paying the amount provided in this bill.

Mr. FULMER. Will the gentleman yield?

Mr. HOPE. I yield to the gentleman from South Carolina.

Mr. FULMER. Has the gentleman understood from the hearings that the company would be delighted to have the property condemned, and that after all

the work that has been done the best the committee could do was to get a statement that the company would accept \$2,000,000. The company agreed with the Department that they would accept that and they would get the seed.

Mr. HOPE. That is my understanding of the situation. May I say right here that the gentleman from Virginia [Mr. FLANNAGAN], chairman of the subcommittee, is deserving of a very great deal of credit from this Congress for the splendid work that he did in getting this company to reduce the amount at which it offered to sell all of its property, both tangible and intangible. I am satisfied that if we accept this amendment and pass the bill as it is, we will be doing better, not only in the way of the price we will pay but in the way of getting the property immediately than could be done any other way. I agree generally with what has been said on the question of condemnation, but I do not believe it applies in this particular instance. We should adopt the committee amendment. [Here the gavel fell.]

Mr. NICHOLS. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, the argument would be good that it is dangerous to provide for condemnation rather than purchase if that was the only method provided in the bill and if it were not within the power of this Congress to place a limitation upon the amount of money that could be expended, even by condemnation.

Mr. HOPE. Will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Kansas.

Mr. HOPE. Does not the gentleman think we might be confronted with the situation that the Government might go into court, it might get a judgment giving the company more than \$2,000,000 and the company then stand on that judgment? Then you would have to come to Congress and appropriate an additional sum of money, thus causing further delay in a situation where time is of the essence.

Mr. NICHOLS. My friend from Kansas must know the law better than that. It is not necessary for the Government to wait until judgment is given in order to take possession of this property. All the Government has to do where condemnation is provided is to institute condemnation proceedings and immediately enter on and take possession of the property. May I point out to the gentleman from Kansas that we were told in the Rules Committee that this company had some sort of a secret process for the germination of these seeds and that the company had said to the Government of the United States: "We will not give you this formula for germinating the seed, in our great patriotism, unless you buy our company." Well, Mr. Chairman, we better leave condemnation in this bill because unless you do the Government has no way of obtaining this formula except by purchase, and if time is of the essence we will save more time by condemnation proceedings than upon the basis of pure negotiation, then having nothing else to fall back on.

Mr. HOPE. May I call the gentleman's attention to the fact that really one of

the most important things we are getting is this process by which the seeds can be sprouted and other methods that are known only to the employees of this company. We can condemn tangible assets, but we cannot condemn those things. They will have to be given by agreement. That knowledge must be turned over within the next 30 days in order to be of any value. So I do not believe that condemnation will help any in securing what I think is the most vital piece of property we are going to get from the company.

Mr. NICHOLS. If I recall correctly, we are pretty busily engaged in at least trying to get ready to help the Netherlands East Indies. I have been laboring under the impression that they and we are partners of a sort in this struggle. I presume, if that is true, certainly the citizens of the Netherlands are interested in helping us do anything which will be of benefit to us, because that will be an indirect benefit to them.

[Here the gavel fell.]

Mr. NICHOLS. Mr. Chairman, I ask unanimous consent to proceed for 5 additional minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Oklahoma?

There was no objection.

Mr. NICHOLS. I can hardly believe that this company—although it is not an American company but is international in character—would refuse to give our Government any formula they had which would teach us better how to produce rubber. If they would refuse to give it to us, then I would be a little afraid to buy it from them, because they might not tell us all they know. This has to be a partnership affair or it is not worth anything.

Mr. COCHRAN. Mr. Chairman, will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Missouri.

Mr. COCHRAN. In answer to the argument of the gentleman from Kansas, it seems to me that if this is needed for national defense purposes, which it undoubtedly is, then, law or no law, bill or no bill, the President of the United States has the power now to take everything they have, including their processes, their seed, and everything they own. There is no doubt about that.

Mr. POAGE. Mr. Chairman, will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Texas.

Mr. POAGE. May I ask the gentleman if he does not recognize that bringing in the question that the stock is owned partly by citizens of the Netherlands has no bearing in the world upon what anybody does, because the officers are all Americans. Every officer of the company lives in this country. The policy of the company is decided in New York City and not in the Netherlands.

Mr. NICHOLS. That is all I want to know. In the name of common sense, if the officers of this company are American citizens, and then they would say to their great Government, "We have in our possession certain secret processes for the germination of the rubber seed, but we

will not give them to you, the Government of the United States, our Government, unless you pay us a certain sum of money for some junk, some seed"—no; I do not believe there is that brand of American citizen in this country today.

Mr. MAY. Mr. Chairman, will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Kentucky.

Mr. MAY. May I suggest to the gentleman that as I understand the law there are only three ways of acquiring property—by gift or donation, or by contract, or by condemnation. When we withdraw the power to condemn we disarm ourselves of one element we have.

Mr. NICHOLS. All you have to do if you are afraid this language is not strong enough to place a \$2,000,000 limitation on this bill is to offer a simple amendment something like this: Strike out the language that "The Secretary is authorized," and so forth, and insert these words: "Provided, That in no case shall there be paid more than \$2,000,000." I guarantee that then you will have a limitation on price.

Mr. WICKERSHAM. Mr. Chairman, will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Oklahoma.

Mr. WICKERSHAM. For the benefit of the record, I should like to clear up one thing. The testimony of these officers before the committee showed and they said that the Department of Agriculture, especially Dr. Brandes, knew as much about the development of the seed as they did; in fact, they said that Dr. Brandes himself knew more about the development of the seed than they did.

Mr. NICHOLS. I must say that I do not know much about it. I was taking the word of my good friend from Kansas, who said there was a secret process known only to the men in this company. If I am wrong in that, I am sorry.

Mr. WHITTINGTON. Mr. Chairman, will the gentleman yield?

Mr. NICHOLS. I yield to the gentleman from Mississippi.

Mr. WHITTINGTON. With respect to the patents and processes, may I say that the very best that can be said about these hearings is that the testimony is rather shy. This second amendment provides for paying \$2,000,000 for patents and processes. I call your attention to the following testimony on page 74:

Mr. FLANNAGAN. Are any of these intangible assets represented by trade-marks?

Mr. BAKER. No.

Mr. FLANNAGAN. Good will?

Mr. BAKER. No good will; nothing for patents or good will.

They are all straight-out tangible assets.

Mr. NICHOLS. I shall conclude with this: Whatever there is here to buy, if it is to be purchased by the Government of the United States, we had better provide every means possible for the Government to obtain it.

[Here the gavel fell.]

Mr. FLANNAGAN. Mr. Chairman, I move to strike out the last two words.

Mr. Chairman, I do not see any occasion for the membership to become so exercised over this amendment. I

believe, however, that it is an important amendment, and that if the committee amendment is stricken out, the Government is going to lose in the neighborhood of \$2,000,000.

Now, the facts are these: This company spent \$3,707,799 in the development of the guayule industry. Their books show this. I think I know a little something about condemnation proceedings. I have had enough experience, and I know that the Federal court will instruct the commissioners in assessing the damages to make the company whole. Now, there is no question in the world about the fact that this company has spent three-million-seven-hundred-odd-thousand dollars in the development of this shrub. The only things it has to show for it now are physical assets worth in the neighborhood of \$700,000 to \$1,000,000 carried on the books of the company at \$1,076,000. Where has the rest of the money gone? It has been spent in the development of this shrub—for experimental purposes. And I know that the court will instruct the commissioners to allow the company moneys spent for experimentation. I do not think there is any question in the world about that proposition.

The company, as a matter of fact, wants the bill as it passed the Senate, giving the Government the right to condemn. In that event the company, of course, will refuse to agree with the Government upon a price. Then the Government will be forced to bring condemnation proceedings, and, in my opinion, in such proceedings the Government will have to pay back to this company every penny that the company can show it spent in the development of this guayule shrub.

Mr. NICHOLS. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. I yield to the gentleman from Oklahoma.

Mr. NICHOLS. In the event condemnation is not left in the bill and the company would refuse to accept the price offered by the Government, and if it was necessary that this seed be planted, as my friend from Kansas says, by March, what means will there be left for the Government to employ to force the company to agree to a price of sale?

Mr. FLANNAGAN. There is no earthly way the Government can force the company to agree upon a price. The Government can institute condemnation proceedings, take possession of the seed and go ahead with the planting of the seed pending the outcome of the condemnation proceedings, but the Commissioners will be instructed to make this company whole.

Mr. WHITTINGTON. But we would not have the power of condemnation if we adopted your amendment to strike it out.

Mr. FLANNAGAN. We have a specific agreement with the company that it will take \$2,000,000.

Mr. COCHRAN. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. I yield to the gentleman from Missouri.

Mr. COCHRAN. Please bear in mind that this applies not only to the purchase of the rights of this company, but this goes all through the bill and applies to the purchase of the ground, where, I understand you to say, you are going to plant this seed by airplane. Further down in this same section you even strike out the word "purchase" and will not let the Government purchase.

Mr. FLANNAGAN. Let me answer the gentleman's question by saying that if the gentleman will read the bill he will find he is in error.

[Here the gavel fell.]

Mr. COCHRAN. Mr. Chairman, I ask unanimous consent that the gentleman from Virginia may have 5 additional minutes. I would like to have the gentleman show me where I am in error.

The CHAIRMAN. Is there objection to the request of the gentleman from Missouri?

There was no objection.

Mr. FLANNAGAN. Let me explain to the gentleman the provisions of this bill. The bill provides that the Government shall acquire the holdings of the Intercontinental Rubber Co. in California, including its secret processes, its secret method of germinating seed and 23,000 pounds of the seed for a sum not to exceed \$2,000,000. Now when it comes to condemning, the Government, in the bill, is given the right to condemn lands for nurseries and it will take probably 1,000 or 2,000 acres for that purpose and for plant sites. Then we limit the Government when it comes to planting to leasing land for planting or contracting for planting. That is, to contract with the farmers to raise the shrub for a certain amount or to lease land upon which the plantings are to be made.

Mr. COCHRAN. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. I yield to the gentleman.

Mr. COCHRAN. That is true, but why should we confine the Government of the United States to leasing if the Government is going into this business? If you lease the property and you put this on the property for not exceeding 10 years, then at the expiration of 10 years, all the money and all the work we have done would revert to the owner of the property. Why not purchase it? You strike out the word "purchase" in that paragraph.

Mr. FLANNAGAN. Let me answer the gentleman by stating that we do that because I think the membership of the committee, or most of us on the committee, are against the Government getting into business. We did not want the Government to have the right to go down into California and the other Southwestern States and buy up hundreds of thousands of acres of land, and that is just what will happen if we give the Government the right to purchase.

Mr. COCHRAN. This is a lot of land that will not grow anything else, I assume.

Mr. FLANNAGAN. Oh, this is valuable land. We would spend millions of dollars acquiring title to the land, and if after the war is over we decide to limit

the production of the guayule or to go out of the guayule business, then we will have the Government owning probably 100,000 acres or so of land in California and the other Southwestern States.

Mr. COCHRAN. It is just as reasonable to make a lease of property with me, and place a building on it, which will revert to me at the end of 10 years.

Mr. FLANNAGAN. The Government cannot do that under the terms of the bill. The plant sites are purchased in fee simple, and so are the lands for nurseries, and it will take probably 1,000 to 1,500 acres for nurseries. These are the only purposes for which the Government can acquire the fee in the land.

Mr. COCHRAN. At the same time the gentleman must admit that you are going to pay a man to lease his property for 10 years, and what for? To build it up with the plants which at the end of 10 years will make his land extremely valuable when it reverts to him.

Mr. FLANNAGAN. Oh, no; that is not the language of the bill. It is planned that the Government will contract for the planting of guayule, and if the Government is unable to contract with the farmers for the planting of it, then the Government has the right to lease land and allow the Forest Service to plant the land.

Mr. COFFEE of Nebraska. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. Yes.

Mr. COFFEE of Nebraska. Is it not a fact that the testimony shows that this Intercontinental Company will not plant this seed this year if the sale to the Government is not made? And does it not show that they have no intention of developing further production from the guayule plant in the United States?

Mr. FLANNAGAN. They frankly testified to that. The other rubber companies in America have stated they did not want to go into this guayule rubber business even if we subsidized the business.

The CHAIRMAN. The time of the gentleman from Virginia has expired.

Mr. PACE. Mr. Chairman, I rise in support of the amendment and I ask the attention of the committee for just a moment, because there seems to be a complete misunderstanding of the plan underlying this proposal. The Department of Agriculture recommended not only the purchase of the seed, equipment, and about 1,000 acres of land, 550 acres of which are planted in guayule plants now, but also recommended the purchase of 75,000 acres of land, not from the Intercontinental Co. This bill covers 1,000 acres of land they own in California and they wanted in addition, to purchase 75,000 acres of land upon which to plant the seeds from different people all in California. The committee has adopted a definite policy that, so far as it is concerned, the Department of Agriculture has plenty of land. The Farm Security has purchased thousands and thousands of acres of land, and we think they have bought enough. So the proposal in the bill is that from the Intercontinental Co. we are to get 1,000 acres of land on which

there is now 550 acres of guayule plants growing. Then, instead of the Department of Agriculture buying 75,000 acres more of land, we propose to go to the farmers of that section and contract with them, if that can be arranged, to put out the little shrubs. Understand that the seed has first to go into a nursery for 8 or 10 months, and then you take the seedlings and put them out; and the proposal is to go to the farmers as I say, where the soil is proper, and see if the farmers will plant these seedlings, and if they fail to get that cooperation from the farmers then we permit the Department of Agriculture to go out itself and lease land, not to buy. Frankly the 10-year limitation was put in by the committee for this reason. The Department wanted to buy the land. If we simply said lease, we were afraid the Government would go out and lease land for 99 years, which is comparable with purchase, and we figured that at the end of 10 years the war would probably be over, and then we will know whether or not this is a practical proposition worth going further with in the years to come. There will not be any building on these lands; there will not be any construction. If the farmers themselves will not put out these seedlings then the Secretary of Agriculture will lease lands, not for more than 10 years, and put the seedlings out.

At the end of 10 years if the Congress does not want to continue this experiment, if it has not proven worth while, all you have to do is to cut the guayule plants off of the land and make them into rubber and move off. You have not lost a thing in the world. I think the committee has done exactly what you want done. That is, you do not want the United States Government or the Department of Agriculture, on a purely experimental proposition, to go out and buy 75,000 acres of land.

Mr. COCHRAN. Mr. Chairman, will the gentleman yield?

Mr. PACE. Yes; I yield.

Mr. COCHRAN. The gentleman paints a picture where we are going to buy 75,000 acres of land—

Mr. PACE. No; I did not. I said the Department of Agriculture recommended that we buy 75,000 acres.

Mr. COCHRAN. Now read paragraph 1 of the bill.

Mr. PACE. I have read it many times.

Mr. COCHRAN. You have there the right to purchase thousands of acres but not to acquire them by condemnation. That is my amendment that is pending now to give the right to condemn if necessary.

Mr. PACE. I do not care what you do about condemnation one way or the other. I do not regard that as such an important provision in the bill.

Mr. COCHRAN. But then go down to subsection 3.

Mr. PACE. That is right.

Mr. COCHRAN. That is where you are going to get the farmers to do this.

Mr. PACE. If you can.

Mr. COCHRAN. If you can? Suppose they say, "We will not do it."

Mr. PACE. Then it is up to the Department to go out and lease the land and put out the seedlings itself.

Mr. COCHRAN. Suppose they refuse to lease it?

Mr. PACE. Please bear in mind that to produce guayule you must provide a sprinkler system.

Mr. FULMER. Mr. Chairman, I would like to come to some understanding about the time. We have had about half an hour on one little amendment. I ask unanimous consent that all debate on this amendment close in 5 minutes.

Mr. CRAWFORD. Mr. Chairman, reserving the right to object—

The CHAIRMAN. Is there objection to the gentleman's request that all debate on this amendment close in 5 minutes?

Mr. FULMER. Mr. Chairman, I move that all debate on this amendment close in 5 minutes.

The CHAIRMAN. The question is on the motion of the gentleman from South Carolina.

The motion was agreed to.

The CHAIRMAN. The gentleman from Texas [Mr. SOUTH] is recognized.

Mr. SOUTH. Mr. Chairman, ordinarily I would be in favor of the position taken by the gentleman from Missouri [Mr. COCHRAN], but after having studied this case in considerable detail and having discussed it with the gentleman from Nebraska [Mr. COFFEE], and the gentleman from Texas [Mr. POAGE], and other members of the committee I am of the opinion that we would make a mistake to reject the amendment for these reasons:

The testimony shows that the company has been out well over twice the \$2,000,000 that will be paid for the property. The committee has determined that it can be bought for that price. What will result if the committee amendment is rejected? In the first place, the matter will likely go to court. The company will be prepared to show that they have been out more than \$4,000,000. While they are going to be confronted with the proposition that they have not shown a profit, let me remind you that during a part of their 30 years' operation they have had to compete with foreign rubber selling as low as 3 cents. The testimony shows that. But with Pearl Harbor, 3-cent rubber coming into this country became a matter of history. So whereas they did not make and profit during those years there is no reason to believe they cannot make a profit under the price they can get now.

You have heard several members of the committee say during this debate that the company wants this amendment rejected. These men would not make this assertion unless they had some basis for it. If the company wants to go into court, it is because they believe they can get more money for their property by so doing. We must not lose sight of the fact that it will cost our Government something to litigate this matter. Of more importance, we must keep in mind the fact that by an outright purchase, as contemplated by the committee, we will secure the good will and friendly cooperation of men who have 30 years' experience in dealing with the guayule plant. Dr. Brandes, with the Department of Agriculture, testified before the committee

that time is an important element; that if the property were acquired the next day after his testimony, which was almost a month ago, that it would not be one day too early. We cannot afford to quibble as to the details when by so doing we would eventually be out more money and produce less rubber.

There is a vast area in southwest Texas, much of which is situated in my district, where this plant grows wild, and where it can be profitably grown. In this connection, Mr. Chairman, I submit for the RECORD a telegram which I received from one of my progressive and enterprising constituents:

DEL RIO, TEX.,
January 16, 1942.

Congressman C. L. SOUTH,
Washington, D. C.:

In consideration of guayule rubber plant development, will you keep in mind the desirability of area around Del Rio for production of this plant, and fact it already grows wild in adjacent Texas and Mexico country. We have thousands of acres of similar desirable land already under irrigation, with plenty of water available, where guayule will grow plentifully. We can furnish land for erection of facilities to work over plant and produce raw rubber. Please give us some help on this, and I personally guarantee we'll give you full cooperation at this end. Suggestions wanted.

LOUIS F. LEURIG, *News Herald*.

Let me say again that by the adoption of the committee amendment our Government will save time and money.

The CHAIRMAN. The Chair recognizes the gentleman from Michigan [Mr. CRAWFORD] for 2 minutes.

Mr. CRAWFORD. Mr. Chairman, I had some vital questions to ask on this particular proposition which I cannot ask in 2 minutes. So let the vote come.

The CHAIRMAN. The Chair recognizes the gentleman from Florida [Mr. GREEN].

Mr. GREEN. Mr. Chairman, the bill before the House this afternoon as presented by the House Committee on Agriculture, brings to my mind legislation heretofore presented by this committee, affecting the production of sugarcane in continental United States. I have reference to the Sugar Quota Acts of 1937 and legislation continuing the force of same. The impending sugar shortage facing the United States has prompted me to introduce H. R. 6541, as follows:

BILL FOR REPEAL

A bill exempting cane sugar produced in the United States from the quota provisions of the Sugar Act of 1937

Be it enacted, etc., That section 212 of the Sugar Act of 1937, as amended (making exemptions from the quota provisions of such act), is amended by inserting before the period at the end thereof a comma and the following: "or (5) cane sugar produced in the continental United States."

I would call especially to the attention of the members present of the House Committee on Agriculture, this bill. It is your committee of course which handles this legislation. If you will report, then the Congress pass, this bill, it will go a long way toward relieving the present sugar shortage. We may reasonably anticipate that before the war is over the sugar shortage in this country may

be grave. I am sure you will be interested in a brief statement of Florida's deep interest in this subject.

FLORIDA EVERGLADES VALUABLE

Many years ago the Federal Government ceded to Florida between 5,000,000 and 6,000,000 acres of swamp and overflowed lands in Florida, principally in the Everglades area. The condition of this transaction was that Florida should drain and reclaim this vast area. The State of Florida and her citizens diligently went about carrying out their part of this compact. Probably \$50,000,000 was expended in the Florida Everglades in drainage, flood control, and navigation. Some 4,000,000 acres of this land is now arable and represents probably the richest and most fertile land in the world. It is peculiarly adapted to the growth of sugarcane. It produces, I believe, more tons of sugar per acre than any land in the world.

Our Everglades people did not turn to the production of sugarcane until adversities in vegetable production overtook them. First, they saw their pineapple industry move over to Cuba. Later, and at present, they are now seeing their winter vegetable industry absorbed by Cuba and other foreign islands on account of pernicious reciprocal trade agreements entered into in the past by the Federal Government. Reciprocal trade agreements with Cuba have made it unprofitable in many instances to undertake to grow winter vegetables in south Florida. Without these reciprocal trade agreements and with adequate protection for our winter vegetables and fruits in the south Florida area, we would never have been forced to turn to the production of cane sugar. I opposed vigorously and voted against the reciprocal trade agreements.

NATURAL SUGAR BOWL

As a last resort for American production, capital turned to the Everglades and there established our present thriving sugar industry. We are cultivating probably less than 20,000 acres of sugarcane in the Everglades now. This low production was caused by the Jones-Costigan Act and the 1937 act and their later extensions. If we could be permitted to expand production of sugarcane in the Everglades from 3,000,000 to 4,000,000 acres could be taken up and would produce a large portion of the sugar consumed in the United States.

Just as we are beginning to profitably produce sugar in the Everglades, the Federal Government halts us and forbids expansion. This is an unwise policy and one which no businessman would permit in his own financial transactions. Florida is not interested in subsidies given for acreage reduced. It is true that many acres of cane were during the past seasons plowed under in the Everglades and the Government paid more than one and one-quarter million dollars subsidy for this act. These same acres would have produced the growers far greater income if they had been permitted to harvest the cane crop. I argued then and now the folly of such act. We needed then, and need more acutely now, more domestic cane sugar.

The fact of the matter is, we do not believe in restriction of production of sugar in continental United States and in our Territories as long as we produce only a small percentage of the amount consumed in the United States. In Florida is consumed possibly 100,000 tons a year. In Florida we were, in pre-war times, permitted to market, under the provisions of Federal law, a far less amount; therefore, under the provisions of this law Florida takes the rule of consumer rather than that of producer. It is an unfair and an unjust discrimination against my State to restrict it from producing less sugar than is actually consumed in it. It is a costly adventure for the Government to pay Florida growers funds to keep acres out of production and at the same time to import from foreign countries sugar which is needed by the American people.

If we were permitted to expand production of sugarcane in the Everglades, we would have no relief problem there among some 50,000 population. All in this South Florida area who desired to work could and would find gainful employment in an honorable and necessary industry for the future development and progress of our Nation. When production of sugar is restricted there, it has the effect of adding thousands to the relief roll or at least failing to take from the relief rolls thousands that could be absorbed in gainful occupation. Therefore, our Government, through the workings of this sugar-restriction law, denies employment to our persons, keeps them on the relief rolls, and at the same time paid bounties to our people who desired to produce at a profit, but who were not permitted to do so.

Some 2 years ago, and the picture is about the same today, continental United States did not produce but about 30 percent of the sugar consumed in our country. We produced in continental United States about 24 percent beet sugar; Louisiana produced a little less than 6 percent; Florida about 1 percent; Puerto Rico, 13 percent; Hawaii, 14 percent; the Philippine Islands, 15 percent; and Cuba, 28 or 29 percent. Combining the United States beet and cane sugar production, and also that of our two Territories, Puerto Rico and Hawaii, the United States produced only about 55 percent of the sugar consumed in the United States.

The theory has been that we should buy Cuban sugar and sugar from other foreign countries because these countries used American-made goods. This of course is not at all consistent, in fact, because these foreign countries do not purchase from us in other American products anything like the amount of money spent with those foreign nations to purchase sugar. The fact is, a few money interests in the United States have made their investments in these foreign countries and are doing all they can to compel the United States to use sugar produced in these foreign countries in order that these investments may remain profitable. This vicious sugar production restriction legislation which I would repeal has for its purpose to freeze sugar production in a certain portion of the country or in a certain por-

tion of the world. It is the height of folly for our Government to be a party to freezing and stopping production of cane sugar in the United States when we are able to produce only 30 percent of our annual consumption requirements.

AMERICA LABOR DEFENDED

American labor is used to produce sugar in continental United States and this labor spends its wages and consumes other American goods and products. American labor and American people are entitled to the benefits of American production. Our Government owes far more to the citizens of the United States than it does to those of Cuba, Java, Sumatra, the Dutch East Indies, and other foreign countries which have been furnishing sugar for the American table. The fact is, some of the countries which have been furnishing sugar to us are now at war with us.

We can all appreciate the ties which exist between the Philippine Islands and the United States and we are proud of the heroic and brave efforts of the Philippine people in their aid to General MacArthur in defending their homeland. The fact is, however, on account of war conditions, it is practically impossible to transport to the United States adequate supplies of Philippine sugar, and even if there was no interruption in Philippine sugar production and its transportation to the United States, we have still been receiving only 15 percent of the requirements of the United States from the Philippines. We cannot predict what will be the status of the Philippine Islands in future years; however, we do know that the Congress has voted independence for the Philippines, effective in 1945.

It is timely and just that all cane-sugar production restrictions in continental United States be lifted permanently. It is true that the Department of Agriculture has issued order suspending acreage restrictions for 1942. It is amazing for one presumed to have the knowledge which the Secretary of Agriculture should have, to suggest the suspension of acreage restrictions for only 1 year in the production of sugarcane. The Secretary of Agriculture evidently has no knowledge of the production of sugar from sugarcane or either he is offering this as an empty and idle gesture to cover up the viciousness of present continental sugar production control legislation. It is impossible for any individual, firm, or corporation to profitably plant and process sugarcane with only one growing season permitted. Even two or three growing seasons will not justify planting of sugarcane.

The fact is, from 1 year's planting several crops in succeeding years may be harvested. It is the practice to stubble the plant for some 3 to 7 years. It also requires large expenditure of capital to build or expand cane-juice processing plants. No one with any knowledge of the sugarcane industry would be foolish enough to undertake to expand acreage and embark upon sugarcane production for only 1 or 2 years' crop possibility. Florida, and also Louisiana—yes; the richer soils of several of the Southern

States—offer great opportunity for extensive development of the sugarcane industry, and the industry would there develop if these acreage restrictions would be permanently abolished. In my State it is believed that there is hope for the production of a large portion of America's needs. At least we are entitled to a chance to try.

WAR CRISIS

If the United States and its Territories were now producing, and even in peacetime could produce, the Nation's requirements, then there would be some excuse for acreage restrictions; however, this is far from the case. We do not now produce, and may never be able to produce within the United States and our Territories, as much sugar as we can consume. The rights of men and citizens far exceed the rights of money. I appeal to you as fair-minded men to place human rights and the security of our citizens, particularly during this war period, above the rights of the dollar, and to vote with me for the enactment of H. R. 6541. News stories and radio broadcasts tell us of the impending shortage of industrial alcohol and the probability of converting millions of bushels of edible grain for this purpose. In all probability this will have to be done. We will probably have to process for industrial alcohol grain which will be needed by hungry mouths, possibly in our own country, and surely in the lands of our Allies in this war. Sugar, of course, is the natural source for industrial alcohol. Would it not be far better to have permanent and businesslike expansion to the full limit of the sugarcane industry in our States and supply, insofar as is possible, this need and save the grain for hungry people? Sugar is a vital and necessary food and is essential in the American diet. Babies, invalids, and adults require it to give them strength and vitality. It is also most important and essential in the manufacture of war explosives.

Our Nation is now in the most grave crisis of its history. It is time for us to lay aside food-production restrictions. Even the Secretary of Agriculture in one breath calls for expanding and unlimited food production and in the next breath says, "We will let you make sugarcane for 1 year." It is obvious that food is needed now and will be needed far worse before the crisis has passed. I appeal to you as fair-minded men to cooperate with the Florida congressional delegation, who are united in this effort for the permanent repeal of sugarcane acreage restrictions in continental United States.

I ask unanimous consent to revise and extend my remarks and print in the *RECORD* a bill which I have introduced recently to repeal this vicious and foolish piece of legislation, which restricts the production of sugar in a time when we are having a sugar shortage. It is absurd.

The CHAIRMAN. Without objection, the request of the gentleman is granted. There was no objection.

The CHAIRMAN. The question is on the committee amendment.

Mr. WHITTINGTON. Mr. Chairman, a parliamentary inquiry. If we favor the condemnation feature remaining in the bill, the vote should be "nay."

The CHAIRMAN. Without objection, the Clerk will again report the committee amendment.

There being no objection, the Clerk again reported the committee amendment.

The CHAIRMAN. The question is on the committee amendment.

The question was taken; and on a division there were ayes 52 and noes 29.

Mr. COCHRAN. Mr. Chairman, I ask for tellers.

Tellers were refused.

So the amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

Page 2, line 1, after the word "operation", insert the following: "including but not limited to any such rights owned or controlled by the Intercontinental Rubber Co., or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents, and processes of the Intercontinent Rubber Co., or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Co. or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000;"

Mr. NICHOLS. Mr. Chairman, I rise in opposition to the committee amendment.

Mr. Chairman, I ask unanimous consent to proceed out of order.

The CHAIRMAN. Is there objection to the request of the gentleman from Oklahoma?

Mr. CRAWFORD. Mr. Chairman, reserving the right to object, and I shall not, I certainly have no objection to the gentleman's proceeding out of order, but I wish to ask, if the gentleman from Oklahoma will yield so I may, of the chairman of the committee if any time will be granted under this amendment for us to talk a few minutes?

Mr. FULMER. Yes; but we hope to get through as soon as possible.

Mr. CRAWFORD. Because if not I serve notice now I shall object to any further extensions of time or requests to speak out of order.

The CHAIRMAN. Is there objection to the request of the gentleman from Oklahoma?

There was no objection.

Mr. NICHOLS. Mr. Chairman, on last Sunday I returned from the Pacific coast, where my committee had gone to investigate an airplane accident which cost the lives of 15 of our Army's crack fliers, to find that the Congress had passed a bill which, among other things, extended the Civil Service Retirement Act to Members of the House and Senate.

This act was finally passed in the House without a record vote, so even if I had been here I could not have recorded my opposition. However, I want to make it known that I am opposed to the inclusion of Members of the House and Senate and other elective officers in the Civil Service Retirement system.

I think that this illustrates, however, the growing influence of the civil-service outlook on the Federal Government. The Civil Service Commission is putting about 100,000 persons to work each month in the Government, according to its own figures. Hundreds of them are drawing practically the same salary as Members of Congress, and are eligible for retirement. They dominate the Government, and Members of Congress are lucky if they can find out what they are doing, even after it is done.

I notice that the Civil Service Commission has leaped to the defense of the extension of the Civil Service Retirement Act to Members of the House and Senate. The Commission has issued a news release justifying this extension. This is supposed to silence all opposition. I am afraid, however, that it will have exactly the opposite effect.

Federal employees are cowed and dominated and intimidated by the Civil Service Commission. This latest extension of the law will make it appear that the Civil Service Commission is also attempting to get the Members of the House and Senate into a position so that they will be subject to intimidation.

Instead of passing laws extending civil service retirement provisions, which cost the Government millions of dollars, to additional persons, we should be giving consideration to taking care of the millions of people who do not work for the Government or for any other agency, concern, or business covered by the Social Security Act, and thus have no opportunity to make provisions for retirement annuities. We should be working on a real old-age pension act.

For every one person in my district who is under either the civil-service or social-security retirement provisions there are 100 who must depend on our present battered and discredited old-age assistance laws, under which they receive an average of about \$15 a month to care for themselves and their families. And they do not get this if they dare to take in a roomer, even one of their own children who has a job, or engage in such nefarious occupations as planting a little vegetable garden or keeping chickens or a cow.

The Nation needs more food products, and is making a big effort to raise production, but if one of these unlucky old persons, in an effort to prevent slow starvation on their \$15 a month, dares to plant a garden or milk a cow, the snoopers from the State office may find it out and they will then deduct the value of the vegetables or the milk produced from their monthly check.

Passage of the act extending the retirement provisions to Members of Congress leaves but one more step to be taken to give the Civil Service Commission absolute domination of the whole country. All we have to do now is to find a way to blanket ourselves here in Congress under civil service, providing, as the Commission does for other employees of the Government, that elections are suspended and that we will hold office for life, or at the pleasure of

the Commission. Then everything will be fixed up so that, according to the Commission's program, right and justice and truth will prevail henceforth and forever. We will have no more mean old politics in the country. Everything will be on the "merit" system.

Of course, the idea is silly. So is the idea of subjecting Members of Congress to the Civil Service Retirement Act. I predict that the rising tide of public revulsion and horror, which is already sweeping the country, will become so strong that this act, which was passed by unanimous consent last week, will continue to haunt us unless it is repealed.

Several Members have already introduced bills calling for repeal, but the big trouble is that they are referred to the Civil Service Committee of the House, and the Civil Service Committee will never report one of these bills out until it is forced to.

Mr. FULMER. Mr. Chairman, I ask unanimous consent that all debate on this amendment close in 10 minutes.

The CHAIRMAN. Without objection, it is so ordered.

There was no objection.

The CHAIRMAN. The gentleman from Michigan [Mr. Hook] is recognized for 5 minutes.

Mr. HOOK. Mr. Chairman, I ask unanimous consent to proceed out of order.

The CHAIRMAN. Is there objection to the request of the gentleman from Michigan?

There was no objection.

Mr. HOOK. Mr. Chairman, I have the highest regard and the deepest respect for my colleague from Oklahoma, but I cannot agree with his remarks concerning the Ramspeck bill providing for retirement pay for Government officials and erroneously referred to as pensions for Members of Congress. There are Members of this body and of the body at the other end of the Capitol who probably will gain materially because of this act of Congress; but let me say right now that any man who has served here for 15 or 20 years should at least be entitled to the same privileges as postmasters. Just a short while ago we extended practically similar provisions to postmasters, and under it 2,400 were retired, having to make a contribution of only the assessment on 1 month's back pay.

I know of Members of this body who will have to pay in over \$15,000 in order to receive the benefits provided for in the legislation referred to. It is not a gratuity but nothing more nor less than an insurance or paid-up annuity the same as is provided by old-line insurance companies. It is not a pension. The average Member of Congress under the bill passed would pay and pay plenty if he voluntarily comes in under the provisions of the bill. His secretaries, his clerks come in under the provisions of the bill. All officers of the Government come in under the provisions of the bill. I think it is about time that Members of Congress have intestinal fortitude

enough not to discriminate against themselves.

The people of the United States of America do not expect Members of Congress to discriminate against themselves. Are we going to allow throughout the Nation an opinion to arise similar to that which arose in France? Are we going to allow the press of this Nation to try to undermine the confidence of the public in the legislative body that they should have confidence in? I hear about these "bundles for Congressmen." In my opinion this is just another part of a movement started by Axis agents to undermine the confidence that the people have in this Congress. That was the very thing that happened in France. Propaganda was put out to undermine the confidence of the people in their government. The Axis propaganda agents have been busy for some time feeding unsuspecting people with ammunition to spread against sitting Members so that the people of this Nation will lose confidence in their elected representatives. It is our duty as Americans to do what we can to stop this vicious onslaught in the interest of America.

The people of the United States of America when they realize, and a great majority of them do, the equity of the provisions of that bill, you will hear no objection. If the newspapers of this country will print the actual facts and let the people know that the Federal jurists of this country are retired on full pay, without any contributions at all, and the officers of the Army and Navy of this country are retired on 75 percent of their salaries, the sentiment will be different. Since when does a Member of Congress render less service to his Government than officers of the United States Army or Navy? We have rendered and I know will continue to render real service. I for one feel that I have the intestinal fortitude to tell my people if I am not rendering the kind of service they expect of me, they can take me out at any time. As long as I am here, I am not going to discriminate against Members of Congress. I want them to have the same privileges that all other officers of the United States Government have.

I for one will not sit idly by and let this Axis move by Axis agents to undermine the confidence of the people in their Government be successful as it was in France. We are on the firing line and it is up to us to fight this as all other Axis moves. A statement of facts is the best weapon against these Axis termites.

The CHAIRMAN. The Chair recognizes the gentleman from Michigan [Mr. CRAWFORD].

Mr. CRAWFORD. Mr. Chairman, I wish to ask the chairman of the Committee on Agriculture, how many pounds of seed are involved, 2,300 pounds or 23,000 pounds?

Mr. FULMER. Twenty-three thousand pounds.

Mr. CRAWFORD. Both figures were used. Has the chairman any information showing where these seeds were grown, that is, whether in the United States or in Mexico?

Mr. FULMER. It is my information, and I think it is in the testimony, that they were grown in the United States.

Mr. CRAWFORD. Is there anyone on the floor who can answer that question?

Mr. FLANNAGAN. That is correct.

Mr. ANDERSON of California. They were grown in Monterey County, Calif.

Mr. CRAWFORD. When were those seeds grown?

Mr. ANDERSON of California. Those seeds have been secured from the growing of the guayule sprout in California for a period of the last several years.

Mr. CRAWFORD. How many years?

Mr. ANDERSON of California. It is rather difficult to say. I should say the last 4 or 5 years.

Mr. CRAWFORD. Did our Department of Agriculture run germination tests on those seeds for each year involved?

Mr. ANDERSON of California. There is testimony to the effect that the seed is perfectly good in its present status. It is sealed in hermetically sealed tins in California.

Mr. CRAWFORD. Each year separately?

Mr. ANDERSON of California. I presume they are.

Mr. CRAWFORD. But the testimony does not show that?

Mr. ANDERSON of California. No.

Mr. CRAWFORD. The gentleman cannot say whether germination tests were made on the seed for each year?

Mr. ANDERSON of California. Germination tests are made on each year's crop.

Mr. CRAWFORD. I mean recent germination tests. I do not mean when the seed was put up. I mean recent germination tests.

Mr. ANDERSON of California. I cannot say whether the tests were made or not.

Mr. CRAWFORD. There is the crux of the situation so far as the value of the seed is concerned.

Mr. ANDERSON of California. There is testimony to the effect that seed kept in these hermetically sealed tins will keep indefinitely.

Mr. CRAWFORD. If you have not any germination tests, you have not the information. Let me ask this question: Are the seeds involved here of the high rubber content or the low rubber content?

Mr. ANDERSON of California. It is the highest producing type of guayule plant developed to date.

Mr. CRAWFORD. Does the seed in California run a higher rubber content than the seed in Mexico?

Mr. ANDERSON of California. Much higher.

Mr. CRAWFORD. Why has the company been operating so successfully in Mexico, and has been such a failure in the United States?

Mr. ANDERSON of California. Because in Mexico the company exploits the wild shrub where no cost is involved. There is no cultivation involved. They pick it with cheap Mexican labor and with the costs that exist in Mexico, they are

able to export this rubber into the United States and make money on it.

Mr. CRAWFORD. What chance have we got to make this a successful operation as against the Mexican operation?

Mr. ANDERSON of California. The hearings will disclose that this is not a competitive product when the price of rubber is down as low as 3 to 5 cents. At the present time it is 22½ cents per pound and Dr. Brandes states this can be grown economically in this country and that over the entire program as laid out in this bill there is little or no cost to the Government.

Mr. CRAWFORD. Were any figures submitted showing the amount of money invested in the United States and in the California operations by this company?

Mr. ANDERSON of California. If the gentleman will look on page 97 of the hearings, he will find the complete statement as offered by the Intercontinental Rubber Co.

Mr. CRAWFORD. Is that a certified statement?

Mr. ANDERSON of California. I am not sure whether or not it is a certified statement. It was the statement requested by the Committee on Agriculture and secured.

Mr. CRAWFORD. Nobody can answer as to whether or not the figures are certified?

Mr. ANDERSON of California. The gentleman will have to ask the chairman of the subcommittee for that information.

Mr. CRAWFORD. Was a statement secured showing the money that has been invested over the period of 30 years, or are the figures just rough figures that have been picked up by perhaps a recent bookkeeper's scramble and out of the 30-year records of the company?

Mr. FULMER. I may say to the gentleman that one of the officials representing the corporation had a statement taken from their books giving these figures, and they had charged off everything down to just a little over \$1,000,000.

Mr. CRAWFORD. The statement is made by the chairman of the subcommittee to the effect that this three-million-seven-hundred-thousand-odd dollars was spent in the development of the process for developing guayule rubber, or words to that effect. Does that include the Mexican operations as well as those in the United States?

Mr. FLANNAGAN. It does not. It includes the operations in the United States—in Arizona and California.

Mr. CRAWFORD. I have not read the hearings. Does the statement in the record specifically show that that was the United States operation?

Mr. FLANNAGAN. Yes.

The CHAIRMAN. All time on the amendment has expired. The question is on the committee amendment.

The committee amendment was agreed to.

The Clerk read as follows:

Committee amendment: On page 2, line 13, strike out "Western Hemisphere" and insert "United States."

The committee amendment was agreed to.

The Clerk read as follows:

Committee amendment: On page 2, line 20, strike out "and" and after "facilities" insert "and land for nurseries;"

Mr. WHITTINGTON. Mr. Chairman, I rise in opposition to the committee amendment.

Mr. Chairman, a good deal has been said about the value of this property that is to be acquired for \$2,000,000. As has been suggested, the corporation wrote a letter to the chairman of the committee, the gentleman from South Carolina [Mr. FULMER], and that letter is found on page 97 of the hearings. It gives the expenditures for intangibles and for tangibles. By reference to this statement you will find that there has never been expended in California, according to the corporation, for both tangibles and intangibles in excess of \$2,011,110.

In this letter the representative of the corporation stated that if the bill would pass in the form in which it passed the Senate, he would be agreeable to having an audit of his books with the understanding that they would not ask for more than \$2,600,000. He concluded his letter by saying that they would be agreeable to the amendment providing for payment of \$2,000,000.

With respect to patents and processes, I call attention to the following quotation from the letter, on said page 97:

NOTE.—There were no expenditures for the development of the extraction process because this was brought to the experiment station after development in Mexico.

However, the first amendment has been passed on, a condemnation has been stricken out.

With regard to the pending amendment, to acquire lands for nurseries, may I say that we have to buy these lands under the bill. There is no authority for condemning them because we have stricken out that provision.

I am agreeable to everything the gentleman from Georgia [Mr. PACE] said with respect to the plan to get the farmers to plant this seed. My judgment is that under the language of the bill as introduced by the gentleman from California [Mr. ANDERSON] the Secretary was authorized to lease land for 10 years, for 2 years, or for 5 years. The original language in line 21—and this is in connection with the pending amendment regarding land for nurseries—is, as I quote:

To acquire by purchase, lease, or other agreement.

That would give them the right to acquire by lease.

As a practical matter, I think I know that most landowners would probably ask as much for a 10-year lease as they would for the fee.

My judgment is that if this amendment and the amendment that follows were defeated, it would be in the interest of propagating rubber and would protect the Treasury and enable the Secretary of Agriculture to do the job a great deal more economically than it would be done if we adopt this committee amendment.

We are in the position, if we insert this language, "and land for nurseries," of making the only provision for pur-

chasing lands for any defense purpose, even to provide a camp to house our boys in the armed services, without giving the Government the right to condemn. I shall not refer to that matter further. I think that that language ought to be transferred, and I respectfully suggest to the committee that if that language were transferred to line 22, giving them the right to acquire land for nurseries, with the power of condemnation, it would be in the interest of the Government.

Mr. COOLEY. Mr. Chairman, will the gentleman yield?

Mr. WHITTINGTON. I yield to the gentleman from North Carolina.

Mr. COOLEY. Does not the gentleman agree that by striking out "condemnation and purchase" we are impairing the purchasing power of the Government and handicapping the Government officials when they go out to make a deal?

Mr. WHITTINGTON. I have endeavored to so state in my former argument that we are crippling and hindering the Government in this case as I have never seen done before in the acquiring of public property.

Mr. COOLEY. They will have to lease the land. They cannot buy it or condemn it.

Mr. WHITTINGTON. If this amendment and the next amendment are adopted we force the Secretary of Agriculture, without giving him any discretion, to pay as much for a 10-year lease probably as for the fee. At the expiration of that lease, I know some of the companies that are engaged in the rubber business, and they are the big rubber companies, and at the expiration of the lease, if the Government wanted to or if we leased it from the rubber companies, we can turn it over to them and there is nothing in here to protect the price to the Government.

Mr. RAMSPECK. Mr. Chairman, I rise in opposition to the pro forma amendment and ask unanimous consent to speak out of order.

The CHAIRMAN. Is there objection to the request of the gentleman from Georgia?

There was no objection.

Mr. RAMSPECK. Mr. Chairman, I would not take up the time of the Committee at this time if it were not for the fact that I want to keep the record straight about this question of bringing the Members of the Congress and the Senators under the retirement legislation.

In the first place, I personally talked with at least one-fourth of the membership of this House about that bill before it was brought up. So I know that more than 2 percent of the membership knew it was in the bill, and in that respect the gentleman from Oklahoma [Mr. NICHOLS] is in error.

In the second place, the Civil Service Commission had nothing to do with the fact that the membership of this Congress was included in the bill. I take full responsibility for that, and I have no apologies to make to anybody for putting it in there. I expect to live to see the time when that action will be

appraised as one of the greatest contributions to good government that has ever been made in this country. I know something about the House of Representatives. My experience with it goes back over 30 years, and I know the trials and tribulations of service in this body, and I know personally of many Members who have served in this body who found it impossible to reestablish themselves when they went back home after years of service here.

There has been a lot of misrepresentation of this matter in the newspapers. We are not doing, by the action we took here, anything for ourselves that we have not done for a million and a quarter other people who are on the Federal pay roll. When this act was passed in 1920, 6,000 people were immediately retired who had paid in less than 1 month's contribution. From time to time other groups, including the F. B. I., the employees of the Library of Congress, and the employees in the legislative branch of the Government, were brought in and similar treatment was given to them, and only 2 years ago, as was stated by the gentleman from Michigan [Mr. Hook], we brought in 40,000 postmasters and immediately retired, within 30 days, over 2,000 of them who had paid contributions for only 1 month. So it is not true, as the newspapers have stated, that we have voted ourselves a pension. To get the maximum benefits under this act of one-half of the salary, a Member of Congress would have to serve 35 years and contribute \$17,500 to the fund.

Mr. SHEPPARD. Mr. Chairman, will the gentleman yield?

Mr. RAMSPECK. I yield to the gentleman.

Mr. SHEPPARD. As I understand, there is nothing mandatory about this legislation, and if a Member of the House does not wish to take advantage of the retirement, he does not have to.

Mr. RAMSPECK. He certainly does not have to participate in it if he does not want to.

This bill was approved by the Civil Service Commission, but the language bringing in the Members of the Congress and the Senators was put in by me on my own responsibility and at the request of numerous Members of this body who wanted that privilege and that right. I think they are entitled to it, and I think it would be a fine thing for this country if some of the Members of this Congress would have the courage to stand up and let the people of this country know what the trials and the tribulations are of service here.

We are being belittled by a press that makes no effort to find out the facts. We are being belittled by a bunch of people out on the west coast who started it, probably, as a joke, but who are contributing to the creation of disrespect in this country for the legislative branch of this Government and it is not doing any service to this country when they do it. Of course, they are having some fun, but they do not realize that the enemies of this country have taken it up

and they are carrying it on when the originators of it have probably forgotten all about it.

We ought to stand up for our own rights and let the people know what trials and tribulations are imposed upon the membership of Congress and how much we have to spend. They think you eat free down here in the restaurant. They think you get your hair cut free. They think all of your traveling and all of your other expenses are paid for by the United States Treasury. They do not think you pay any income taxes when you know and I know that you pay more income taxes in proportion to your gross income than does the average person, because you cannot deduct expenses. So, why not have a little courage here and stand up for our rights and let the people know we are not trying to rob the Treasury of the United States, but we are doing for ourselves no more and no less than we are doing for a million and a quarter other people.

[Here the gavel fell.]

Mr. WHITTINGTON. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. WHITTINGTON: On page 2, at the end of line 19, insert "or condemn."

Mr. WHITTINGTON. Mr. Chairman, I do not care to detain the Committee except to say that the amendment I propose on page 2 at the end of line 19 inserts the words "or condemn." That would permit the Government to purchase or condemn necessary equipment, facilities, and land for nurseries. I think the Government should have the power to condemn.

Mr. FLANNAGAN. That would only apply to the condemnation of land used for nurseries, which would be just a small area.

Mr. WHITTINGTON. I do not know what the area would be, but whatever it would be.

Mr. FLANNAGAN. It also gives the Government the right to condemn or purchase facilities.

Mr. WHITTINGTON. I undertook to accommodate myself to the language used in the bill. I take it that the Government would purchase the equipment in the open market and condemn or purchase the land.

Mr. COOLEY. Mr. Chairman, will the gentleman yield?

Mr. WHITTINGTON. Yes.

Mr. COOLEY. The gentleman from Mississippi has been in Congress for quite a number of years. Does the gentleman know of any corresponding action ever taken in any instance by the Congress of the United States? Does the gentleman know of any bill that has ever passed the Congress in which the Congress itself has stripped the Government of the power of condemnation, a power inherent in the right of sovereignty?

Mr. WHITTINGTON. I rather think that in all of the time that I have been chairman of a committee which has probably had as much to do in the acquiring by condemnation of property as most

committees in Congress, I do not recall any other statute that deprived the Government of the power of condemnation.

Mr. COFFEE of Nebraska. Mr. Chairman, will the gentleman yield?

Mr. WHITTINGTON. Yes.

Mr. COFFEE of Nebraska. Can the gentleman give us any reason why the Government should have the right to condemn, say, a thousand acres of land for a nursery in the State of California, when there are thousands and thousands of acres there that can be purchased through negotiation? Is there any reason why we should condemn it?

Mr. WHITTINGTON. I answer the gentleman by saying that under the power of condemnation I rather suspect that in 90 percent of the cases where the Government actually purchased land it has had the good strong right arm of the power to condemn, if the price offered seemed to be exorbitant. The purpose of the power to condemn is to protect the Government if it is unable to negotiate a satisfactory purchase.

Mr. COFFEE of Nebraska. Does not the gentleman think that the Government could purchase somebody else's land in the event that the owner refused to sell at a reasonable price?

Mr. WHITTINGTON. Yes; but undoubtedly, with the power to condemn, the experience of government through the years is that that power is much greater than the power to buy additional land as an inducement for a reasonable price.

Mr. NICHOLS. And I presume the gentleman from Nebraska would not deny that if it had not been for the power to condemn land on which we are putting Army cantonments the Government would have had to pay an exorbitant purchase price for the land?

The CHAIRMAN. The question is on the amendment offered by the gentleman from Mississippi.

Mr. COFFEE of Nebraska. Mr. Chairman, I rise in opposition to the amendment offered by the gentleman from Mississippi [Mr. WHITTINGTON].

I am in favor of this bill as an emergency measure and hope that the planting of guayule shrubs will prove profitable to the growers not only during this emergency but for some years to come. I think it is highly desirable for the Government to develop immediately all possibilities for the production of domestic rubber.

However, I can see no reason why it should be necessary for the Government to condemn land in order to secure a suitable site for nurseries. With all the land in California, certainly a suitable tract that is for sale at a reasonable price can be acquired for this purpose.

After the seedlings have been grown in the nursery, it is hoped that suitable arrangements can be made with farmers, not only in California but in other States where the production of guayule seems feasible, to plant and cultivate these shrubs under Government direction. It was the thought of the committee that equitable arrangements with

farmers could be made to encourage them to plant within the next 2 years from fifty to seventy-five thousand acres of guayule. The seed would be planted in the nurseries in March. This would require only about 700 acres of land. The nurseries would be operated, I understand, by the Forest Service.

Some of those who appeared before the committee from the Department of Agriculture indicated it would be the plan of the Department to purchase the land on which the shrubs were cultivated after being transplanted from the nurseries. The committee did not feel that the Government would be justified in purchasing the land for this purpose. I agree with the committee amendment which would preclude the Government from condemning or purchasing the land to be utilized in the cultivation of the shrubs outside of the nursery. This phase of the operation should in my opinion be conducted by farmers themselves under Government direction. If the right to purchase and condemn is included, there is no telling how many thousand acres would be acquired by the Government for this purpose.

I understand the shrubs would be cultivated only three or four times during the year. If these become Government farms, it would require a vast number of Federal employees to cultivate these guayule shrubs over a period of 4 years before the crop is ready for harvest.

If a great many farmers could be interested in planting these shrubs, they could cultivate this crop in connection with their other crops at much less expense to the Government. There would also be a greater opportunity to expand production immediately and a greater chance for the guayule rubber industry to survive as a private enterprise.

The production of guayule might be considered in the same category as the production of sugar beets in this country. It is in the interest of the general welfare to encourage the production of such vital necessities as rubber and sugar within the continental United States as a protection against just such an emergency as now confronts us. Farmers can be enlisted to cooperate in the production of any commodity so vital to our economic well-being if they are given some assurance of at least cost of production.

There is a chance that this industry can live if we utilize private enterprise instead of setting it up on the basis of a Government enterprise entirely. The bill provides the authority for the Government to purchase sites for factories and nurseries. There is no need to purchase land to put the Government in the business of farming guayule. Farmers themselves can handle that phase of the program under the supervision of the Department of Agriculture.

I hope this amendment is defeated.

[Here the gavel fell.]

The CHAIRMAN. The question is on the amendment offered by the gentleman from Mississippi [Mr. WHITTINGTON] to the committee amendment.

The question was taken; and on a division (demanded by Mr. WHITTINGTON) there were ayes 19 and noes 35.

So the amendment to the committee amendment was rejected.

The CHAIRMAN. The question now recurs on the committee amendment.

The committee amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

On page 2, line 21, strike out the word "purchase."

The committee amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

On page 2, line 22, strike out "or by condemnation" and insert "for not exceeding 10 years."

Mr. WHITTINGTON. Mr. Chairman, I rise in opposition to the committee amendment merely to say, without desiring to detain the committee, that, in my judgment, the Government would be protected by having the power to condemn, if necessary, if they are unable to acquire by purchase or by agreement.

With respect to the cost of this bill—and if I am in error I would like to be corrected—as I understand, it is contemplated to operate about 75,000 acres, and a representative of the Department of Agriculture stated that the cost of operation would be in the neighborhood of \$21,000,000, instead of the initial \$2,000,000 that has been referred to in the debate. But he stated if it was successful there might be paid in during the period of operation approximately ten or eleven million dollars. It occurs to me that the interest of the Government would be safeguarded by giving the Secretary of Agriculture the right, if he cannot purchase this land or lease it on satisfactory terms, to condemn it.

[Here the gavel fell.]

Mr. COOLEY. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, I think this matter has been pretty well discussed, but I rise to agree with the gentleman from Mississippi [Mr. WHITTINGTON].

It seems to me that the power and right of condemnation is a right that is inherent in sovereignty. I do not know of any precedent for the action taken in this bill. That is, to deprive the Government of the right to purchase or to condemn property which is apparently so badly needed for national defense.

Mr. HOPE. Mr. Chairman, will the gentleman yield?

Mr. COOLEY. I yield.

Mr. HOPE. All that we do in this bill, as I understand it, is that we fail to expressly give the Government that power. If the Government has that inherent power, we do not take that away.

Mr. COOLEY. As a lawyer, does not the gentleman agree that the Government has the right, the power of eminent domain vested in it by reason of the fact that it is a sovereign government?

Mr. HOPE. I think that is true as a general principle, but we do not take that away in this bill, because we do not deny the Government the right to condemn.

Mr. WHITTINGTON. Will the gentleman yield?

Mr. COOLEY. I yield.

Mr. WHITTINGTON. With all modesty and deference, if the words "acquire without limitation" had been used, I submit that that would embrace the right to condemn; but the use of the word "purchase" or the use of the word "lease" without the use of the word "condemnation" attached thereto, deprives the Government for the first and only time I know of, of the power of condemnation.

Mr. COOLEY. I think that this weakens the Government's position. Here the Government starts out to acquire property which is badly needed, and we say to the representative of the Government, "We will take away from you the right of condemnation; we will take away from you the right of purchase." When those two words were stricken out in the committee I called attention to the fact that even though we had stricken them out, the Government could go out and lease for 99 years, and they said, "Oh, that is right. We will have to put a limitation on that." So they limited it to 10 years.

The Government can only acquire a leasehold estate under this bill for a period of 10 years.

Mr. PACE. Do I understand the gentleman from North Carolina is now insisting that he wants to put in this bill the word "purchase" to give the Department of Agriculture the right to purchase unlimited lands for the planting of these guayule plants?

Mr. COOLEY. I may say to the gentleman from Georgia that I was opposed to striking out the word "purchase." I was opposed to striking out the word "condemnation", and I was opposed to the Government's going into the business of leasing land for 99 years. I would like to call the gentleman's attention to this situation: If this property is acquired by lease and is covered with guayule plants, they will, of course, be growing at the end of 10 years. The Government may, when it undertakes to renew the lease for an additional 10 years find that the property owners will refuse to renew the lease on the property to take the plants and the enhanced value of the property which has come about as the result of the planting of the guayule thereon.

Mr. PACE. I am certainly surprised and disappointed because of the gentleman's attitude. I thought he took the position that the Department of Agriculture already had enough land and should not be given the right to purchase.

Mr. COOLEY. I do not know where the gentleman got that idea because I voted on it in the House as I did in the committee. I voted against this in the committee.

Mr. FULMER. If the gentleman will yield, I will say, too, that I am somewhat surprised at the gentleman's attitude because he was the author of a proposition to investigate the Farm Security Administration because they have been going around and buying thousands of acres of land.

Mr. COOLEY. That has nothing to do with this. Just because there are sins, if they be sins, in the Farm Security Administration, does not mean that we should restrict our own Government in this particular.

Mr. WHITTINGTON. Mr. Chairman, will the gentleman yield?

Mr. COOLEY. I yield.

Mr. WHITTINGTON. With respect to acquiring unlimited acreage, is it not true that this particular clause under consideration limits the acreage to 75,000?

Mr. COOLEY. I think that is the wording in the bill. Not only that, but there is not any limitation in this bill, as I understand it, upon the amount to be paid for land that might be leased; and as was pointed out here on the floor during general debate, the Government will actually in all probability pay more in rent for 10 years' use of the property than it would pay for fee-simple title to the property; and I just cannot see the wisdom of restricting the Government in this way.

Mr. COFFEE of Nebraska. Mr. Chairman, will the gentleman yield?

Mr. COOLEY. I yield.

Mr. COFFEE of Nebraska. I am just wondering if the gentleman would like to have a crowd from the Department of Agriculture come down in his State of North Carolina and decide that this land would be fine for the cultivation of guayule.

[Here the gavel fell.]

Mr. COOLEY. Mr. Chairman, I ask unanimous consent to proceed for 3 additional minutes.

The CHAIRMAN. Without objection, it is so ordered.

There was no objection.

Mr. COFFEE of Nebraska. I will reframe my question: Would the gentleman like to have a crowd from the Farm Security Administration, I will say, come down into his State, North Carolina, and condemn, say, 20,000 or 30,000 acres of good farm land on the theory that it would be good land for the production of guayule plants for this experiment?

Mr. COOLEY. I only wish they would come down there and use this seed to cover some of the land they have already purchased if it would grow there profitably. But I do not advocate what the gentleman has in mind. I do not want the Government to go into the land business any more than I want the Government to go into any other business; but I do not think it is the part of wisdom for it to lease this land for 10 years, because it was stated before the committee, according to my recollection, that there would not be processing plants in existence sufficient to take care of all the guayule which would be growing on that land at the expiration of the lease period.

It must be something unusual when not even the oldest Member of the House can rise in his place and say this is not a new precedent.

I am anxious for the Government to have all the rubber it can possibly acquire, and all that we need. I am willing even to let this experiment go on, but I do not believe the Government should be held up and that this corporation should take advantage of an emergency such as exists today in an effort to unload this unprofitable business upon the Government at an exorbitant price.

Mr. COFFEE of Nebraska. I think there is a little confusion here because

this particular section or the amendment now under consideration refers to the land only that will be utilized for the production of this guayule after it is taken from the nursery.

Mr. COOLEY. Are you not willing for the Government to buy those lands?

Mr. COFFEE of Nebraska. I think it is more feasible and more practical for the Government to farm that job out among farmers.

Mr. COOLEY. The nursery job?

Mr. COFFEE of Nebraska. This does not apply to the nurseries. This applies only to the growing of the shrubs after the seedlings have been taken from the nurseries, then put out among the farmers.

Mr. COOLEY. I am speaking to the general proposition that the Government ought to have the right to buy and condemn.

[Here the gavel fell.]

Mr. RUSSELL. Mr. Chairman, I ask unanimous consent that the gentleman may be given 2 additional minutes in order that I might ask him some questions, if he will yield to me.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas [Mr. RUSSELL]?

There was no objection.

Mr. RUSSELL. Will the gentleman yield?

Mr. COOLEY. I yield to the gentleman from Texas.

Mr. RUSSELL. If the Government is unable to lease the land at a fair price—they pick out the land which is suitable—and the owners of that land refuse to give them a 10-year lease except at a price far in excess of the value of the land, with the amendment not in there and the right to condemn, is it not a fact that the Government will be forced and compelled by this fraud to pay an exorbitant price?

Mr. COOLEY. Either pay an exorbitant price or it will not acquire the land. These lands are located in a certain area of the country.

Mr. RUSSELL. Would it not be a good proposition for the Government to get the land in fee simple at a less price than to pay for a 10-year lease? If they buy the land, at the end of the 10 years they could sell it to some homesteader.

Mr. COOLEY. I agree with the gentleman, but, unfortunately, the members of the Agricultural Committee disagree with me.

Mr. COFFEE of Nebraska. Would it not be better for the Government not to lease or condemn? Would it not be better for them to farm this stuff out among the farmers themselves, paying them a reasonable price for the rubber which they produce? In other words, give the seedlings to the farmers. That is what I hope, and that is what the committee is interested in.

Mr. COOLEY. I agree with the gentleman. I think it would be much better to farm it out to the farmers and let them grow the plants.

Mr. COFFEE of Nebraska. That is what the committee is driving at by cutting out this right to buy or condemn.

Mr. RUSSELL. The committee admitted it might be impossible to farm it

out, then they would be relegated back to leasing and purchasing the land.

Mr. COOLEY. Or not go into the business at all.

[Here the gavel fell.]

The CHAIRMAN. The question is on the committee amendment.

The committee amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

Page 2, line 25, strike out "Western Hemisphere" and insert "United States."

The committee amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

Page 3, line 8, after the word "guayule", insert "and to purchase land as sites for processing plants."

The committee amendment was agreed to.

The CHAIRMAN. The Clerk will report the next committee amendment.

The Clerk read as follows:

Page 4, line 2, strike out "Western Hemisphere" and insert "United States."

The committee amendment was agreed to.

Mr. SCRUGHAM. Mr. Chairman, I offer an amendment which I send to the Clerk's desk.

The Clerk read as follows:

Amendment offered by Mr. SCRUGHAM: Page 3, line 5, after the word "guayule", strike out the semicolon, insert a comma and the following: "and from chrysanthemum, commonly known as rabbit brush."

Mr. SCRUGHAM. Mr. Chairman, I favor this bill; however the growth of the guayule plant requires some time. There is already available in the waste lands of the far West, on probably 45,000,000 of acres, a plant known as rabbit brush, the scientific name of which is chrysanthemum. Dr. Brandes, Chief of the Rubber Investigations for the Department of Agriculture, states that he considers the rabbit brush as a good possibility, as a large quantity is now in existence. Twenty to forty thousand tons of rubber could be gotten from present growth which covers a very great area.

From the Bureau of Plant Industry I have the following report on rabbit brush:

Many portions of the States of California, Arizona, Nevada, New Mexico, and Utah (and in lesser areas in Colorado, Texas, and Idaho) grow a species of chrysanthemum, known commonly as rabbit brush. This plant contains appreciable amounts of rubber, running up as high as 6 percent of the dry rubber content. Results in survey publications of 1909 indicate that appreciable quantities of rubber could be obtained from these wild plants. In many places, the rabbit brush occurs in almost pure stands but such stands are limited to local areas, widely scattered over these nine States. The work of collecting and transporting is possible but would be arduous and make large demands upon man-hours of labor. The rubber has been extracted from rabbit brush by the method used for extracting rubber from guayule, and the rubber has been tested and found to be of good quality. The rubber extraction plant in existence at Salinas, Calif., could be utilized without modification for extracting rubber from rabbit

brush, particularly from areas in the Mojave Desert and contiguous areas where some of the best stands have been located. It is estimated that as much as thirty to forty thousand tons of rubber may be obtained from plants of this species actually growing but at heavy expenditure of labor.

Mr. FLANNAGAN. Mr. Chairman, will the gentleman yield?

Mr. SCRUGHAM. I yield to the gentleman from Virginia.

Mr. FLANNAGAN. May I say to the gentleman that the Department stated that under the terms of the bill we would have the right to process rabbit brush.

Mr. FULMER. Mr. Chairman, will the gentleman yield?

Mr. SCRUGHAM. I yield to the gentleman from South Carolina.

Mr. FULMER. I may say to the gentleman that the committee will accept the amendment.

Mr. SCRUGHAM. I thank the gentleman.

Mr. Chairman, I ask unanimous consent to revise and extend my remarks and include therein an extract from the *Reno Gazette* of January 22, 1942, which gives a complete description regarding rabbit brush.

The CHAIRMAN. Is there objection to the request of the gentleman from Nevada?

There was no objection.

The article referred to follows:

COMMON RABBIT BRUSH POTENTIAL RUBBER
SOURCE TO AID DEFENSE EFFORT

In cooperation with the Nation's effort to find a native source from which natural rubber can be obtained, M. R. Miller, chemist at the University of Nevada agriculture experiment station said today that studies made several years ago had demonstrated that Nevada is a potential source of rubber.

In 1926, in cooperation with the late J. M. Ryan, Miller made a study of the rabbit brush which is common to most of the State. While it was found that the rabbit brush did contain rubber, it also was seen that the cost of producing rubber from the plant was so expensive that only an extreme national emergency would warrant large-scale operations.

The study was instigated at the suggestion of JAMES G. SCRUGHAM, then Governor and now Congressman from Nevada. Samples were taken from various localities within the State, and content of rubber was determined.

Rubber content of the plants ranged from 0.1 to 3.5 percent, varying with the different parts of the State from which the plants were obtained, Miller said.

Called "chrysil," the rabbit brush rubber was found to be of good quality, would vulcanize readily, and was better than most low-grade rubber.

"Experts have expressed the opinion that the chrysil is superior to the product produced from guayule, a similar western shrub," Miller stated.

"In some cases, individual plants contained as high as 6 percent rubber, and it may be possible that through breeding and selection, as was done with the guayule plant, the rubber content could be raised to a point where production could be commercially feasible; but the time required for such development would not make the rabbit brush available as a source of rubber for several years," Miller said.

As early as 1878, Nevada Indians were familiar with rabbit brush as a source of rubber, the chemist added. "The presence of rubber in the bark of the plant is demonstrated by simply chewing quantities of the

bark. A small pellet of rubber can be obtained which can be chewed after the manner of chewing gum. Indians near St. George, Utah, taught some Mormon boys how to prepare rubber by this method in the late nineteenth century."

The rubber shortage of the first World War stimulated interest in the possibilities of securing rubber from plants native to the United States, and the University of California investigated the possibility of producing rubber, using some Nevada plants as well as shrubs of other States in the study.

Dr. T. H. Goodspeed, and the late Dr. H. M. Hall, both University of California botanists, made an extensive search for native plants containing rubber, and found that rabbit brush could be used. Little was done, although in 1918 the National Research Council acknowledged the potential value of the plant.

During the high rubber prices of 1923, the Government again investigated the findings of Hall and Goodspeed, and confirmed the results of their study. However, the rabbit brush continued to grow wild on the deserts, serving only as a hiding place for jackrabbits. At present it is said that the total rubber content contained in rabbit brush growing widespread over the alkali uninhabited plains of the West, Southwest, and some Rocky Mountain States totals in the neighborhood of 250,000 tons.

Recently, Dr. Goodspeed again called the attention of Government officials to his previous studies, and introduced new evidence compiled by Dr. H. R. Wellman and himself to R. H. Tolley, Chief of the Bureau of Agricultural Economics, and Morris S. Rosenthal, Assistant Director of the Government's War Council.

According to Dr. Goodspeed, rabbit brush, a relative of guayule, can be harvested in the same manner as guayule is now handled in Mexico and California. In both plants the rubber exists mainly in the roots and stems. The guayule plant is finely ground and then dumped into tanks of water. The crude rubber rises to the surface and is skimmed off. Presumably rabbit brush could be handled in much the same manner. The best guayule produces up to 25 percent of its weight in rubber. The proportionate yield of rabbit brush would probably be lower, Dr. Goodspeed believes. He also says that the cost of producing rubber from this source would be about 45 cents a pound, whereas the nominal price of East India rubber is 22½ cents.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Nevada [Mr. SCRUGHAM].

The amendment was agreed to.

Mr. SCRUGHAM. Mr. Chairman, I offer a further amendment.

The Clerk read as follows:

Amendment offered by Mr. SCRUGHAM: On page 3, line 8, after "guayule", insert "and Chrysothamus, commonly known as rabbit brush."

The amendment was agreed to.

The Clerk read as follows:

Sec. 2. (a) The Secretary is authorized to appoint such employees, including citizens of countries in the Western Hemisphere, as may be necessary for carrying out the provisions of this act. Such appointments may be made without regard to the provisions of the civil-service laws, and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments so made by the Secretary shall be made only on the basis of merit and efficiency.

(b) Notwithstanding the provisions of any other law governing the expenditure of pub-

lic funds, the General Accounting Office shall not disallow credit for, nor withhold funds because of, any expenditure which the Secretary shall determine to have been necessary to carry out the provisions of this act.

(c) The Secretary may delegate any of the powers and duties conferred on him by this act to any agency or bureau of the Department of Agriculture.

(d) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, service, facilities, officers, and employees thereof, in carrying out the provisions of this act.

(e) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this act, any funds made available to him under this act.

With the following committee amendment:

On page 4, line 7, strike out "including citizens of countries in the Western Hemisphere."

The amendment was agreed to.

The Clerk read as follows:

Committee amendment: On page 4, line 15, strike out all of lines 15, 16, 17, 18, 19, and 20.

Mr. COCHRAN. Mr. Chairman, I rise in support of the amendment.

Mr. Chairman, I was unable to get this bill amended on the floor a moment ago, but I was able to get it amended in committee. When I looked at this bill at the outset this provision certainly astonished me. On one other occasion this provision was put into a bill the Department of Agriculture sponsored. This provision would absolutely take away from the Comptroller General of the United States the right to audit the accounts, leaving it to the department that spends the money. Here you have a bill with the sky the limit as to the authorization, still this provision was passed by the Senate to let the Secretary of Agriculture, not our representative, the Comptroller General, see that the money was spent according to law.

I called that to the attention of the committee and of the Comptroller General, and the committee has very wisely stricken it out.

Let me call your attention to what it means. In regard to the other law to which I referred, as chairman of the Committee on Expenditures in the Executive Departments, I called the officials of the Department of Agriculture and the Comptroller General before the committee. We insisted that, regardless of the law, the General Accounting Office should audit the accounts. After a 3-day session they agreed to do it, saying that several hundred thousand dollars could be saved. The accounts then were turned over to the General Accounting Office.

I wrote a letter to the Bureau of the Budget, and I told the Director of the Budget that the Department had stated they could save several hundred thousand dollars. I suggested that he keep his eye on that money and see that they did not spend it for some other purpose.

On January 6 of this year the Assistant Director of the Budget wrote this

letter to the chairman of the Committee on Expenditures in the Executive Departments:

Under date of November 10, 1939, Hon. JOHN J. COCHRAN, as chairman of your committee, wrote this office concerning the possibility of returning to the general fund of the Treasury the unobligated balance in the appropriation account "12X2213—Payments for Agricultural Adjustment, Department of Agriculture."

You are now advised that this unobligated balance in the sum of \$304,000 was returned to the surplus fund of the Treasury by appropriation warrant No. 146 under date of December 2, 1941, countersigned December 22, 1941.

That shows you what happened before. The committee has wisely stricken out this provision. If the committee amendment prevails, which I hope it will, then the Comptroller General will audit this account and not the Secretary of Agriculture.

[Here the gavel fell.]

The CHAIRMAN. The question is on the committee amendment.

The committee amendment was agreed to.

The Clerk read as follows:

Committee amendment: Page 4, line 21, strike out "(c)" and insert "(b)."

The committee amendment was agreed to.

The Clerk read as follows:

Committee amendment: Page 4, line 24, strike out "(d)" and insert "(c)."

The committee amendment was agreed to.

The Clerk read as follows:

Committee amendment: Page 5, line 5, strike out "(e)" and insert "(d)."

The committee amendment was agreed to.

The Clerk read as follows:

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this act. Any amounts so appropriated, and any funds received by the Secretary under this act, shall remain permanently available for the purposes of this act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

With the following committee amendment:

Page 5, line 18, after the period insert "Pending the making of the initial appropriation to carry out this act, the Secretary is authorized to use, for purchases or operations that he finds necessary under this act before the making of such appropriation, the funds available to any agency or agencies of the Department of Agriculture, and any such funds so used shall be reimbursed from the appropriation made to carry out this act."

Mr. COCHRAN. Mr. Chairman, I make a point of order against the amendment on the ground it is a reappropriation and therefore obnoxious to the rule. They should come before the Committee on Appropriations and justify any appropriation.

The CHAIRMAN. The Chair sustains the point of order.

Mr. COCHRAN. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. COCHRAN: On page 5, lines 10 and 11, after the word "ap-

propriated", in line 10, strike out "such amounts" and insert "not exceeding \$10,000,000 or so much thereof."

Mr. COCHRAN. Mr. Chairman, under the provisions of this bill as reported by the committee the sky is the limit, \$100,000,000 or whatever they may want to appropriate. I am not anxious to set an exact amount, but I do say we should put some limitation in this bill and not send it to the President in this form.

This is the only argument I have to make. I do not wish to detain the committee, but I believe there should be some limitation put into the bill.

Mr. AUGUST H. ANDRESEN. Mr. Chairman, will the gentleman yield?

Mr. COCHRAN. I yield.

Mr. AUGUST H. ANDRESEN. Jesse Jones proposes to spend \$400,000,000 for synthetic rubber.

Mr. COCHRAN. We are not considering that question here today. We are considering another bill and we should perfect the measure and legislate properly and not say that any amount you want, if you can get it from the Appropriations Committee, you can have.

Mr. FLANNAGAN. Mr. Chairman, I rise in opposition to the amendment.

The amendment, in my opinion, would practically destroy this piece of legislation. I assumed we were serious in our consideration of this measure. We have just authorized something over \$400,000,000 to be spent for synthetic rubber that will be absolutely useless unless we can get some natural rubber to mix with it. Now, when it comes to providing for the natural rubber we want to limit the Department to an expenditure of not exceeding \$10,000,000, in spite of the fact that before the Department can get a cent the amount proposed will have to be approved by the Budget and passed on by the Appropriations Committee and then by this House.

Mr. COCHRAN. Mr. Chairman, will the gentleman yield?

Mr. FLANNAGAN. I yield.

Mr. COCHRAN. I have no desire to destroy the legislation. I am going along with you solely from the standpoint of national defense, but will not the gentleman himself amend my amendment by placing some amount in it and not set the precedent of passing a bill authorizing an unlimited appropriation? That is what I am trying to get at, and I am willing to accept any amount the gentleman may set.

Mr. FLANNAGAN. I think the amount should be passed on by the Budget and by the Committee on Appropriations. Even after this is done, the appropriation will have to be approved by the House.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Missouri.

The amendment was rejected.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. THOMAS of Texas, Chairman of the Committee of the Whole House on the state of the Union, reported that the Committee having had under consideration the bill (S. 2152) pursuant to House Resolution 427, he reported the same

back to the House with sundry amendments agreed to in the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

Is a separate vote demanded on any amendment? If not, the Chair will put them in gross.

The amendments were agreed to.

The bill was ordered to be engrossed and read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

The title was amended.

EXTENSION OF REMARKS

Mr. TABER. Mr. Speaker, I ask unanimous consent to extend my remarks in the Record and to include an article from a newspaper.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. BENNETT. Mr. Speaker, I ask unanimous consent to extend my remarks in the Appendix and to include an address by my colleague the gentleman from Missouri [Mr. PLOESER.]

The SPEAKER. Is there objection to the request of the gentleman from Missouri?

There was no objection.

Mr. LANDIS. Mr. Speaker, I ask unanimous consent to revise and extend my remarks.

The SPEAKER. Is there objection?

There was no objection.

Mr. WILSON. Mr. Speaker, I ask unanimous consent to extend my remarks in the Record by the inclusion of two articles from the Washington Evening Star.

The SPEAKER. Is there objection?

There was no objection.

PREVIOUS ORDERS

The SPEAKER. Under previous order of the House, the gentleman from Massachusetts [Mr. GIFFORD] is recognized for 30 minutes.

Mr. VOORHIS of California. Mr. Speaker, I ask unanimous consent that the gentleman from Massachusetts, who has a special order today for 30 minutes, may have that same privilege on Monday next. I do this at his request.

The SPEAKER. Is there objection?

There was no objection.

The SPEAKER. Under previous order of the House, the gentleman from California [Mr. VOORHIS] is recognized for 15 minutes.

Mr. VOORHIS of California. Mr. Speaker, when a group of people find themselves adrift at sea, or in any other situation of great danger, one of two things happens. Either the members of that group revert to a barbaric attitude toward their fellow human beings, with whom they find their lot cast in this manner, as has happened in some instances in history, or they begin to recognize a deeper and more profound relationship with other people than they have ever known before. The future of our Nation as she finds herself at war, the length of time it will take us to win the war, and our future happiness and welfare will depend to a great degree upon how quickly we get ourselves into the second frame of mind. Up to date

we have not done that nearly as well as we should.

Pettiness, smallness, attempts to gain position and advantage, attempts to fix the blame on other people—these are still with us. I do not think these things ought to exist anywhere in this country or in the Congress or anywhere else at the present time. I believe that the fires of the reality of war, the losses that will be sustained, are going to burn these things away as time goes on, and I think there is another thing that will burn them away, and that is when we begin to realize fully and deeply what it is that America fights for, and what it is she fights against today.

What are those things? America is fighting for decency and honesty in dealings between nations, and I thank God that we have an example of our relations in recent years with the Latin American countries to point to, because here is a case where a great, mighty nation has deliberately chosen a path of neighborliness, and I hope and believe we are going to stick to it.

We fight against the assertion by strong nations that they have the right to over-run weak ones. We fight for the essential brotherhood of all races and kinds of people; not just Anglo-Saxon people, but all people who attempt to deal justly.

We fight against the idea that there are master races who can claim superiority and the license to run over other peoples. This idea contains within itself the germs of its own destruction, and I believe that Hitler has built up for himself a heritage of hatred on the European Continent that one day is going to be a most decisive factor.

America fights for the right of men to be different and to be free to thank God and Him alone for their souls. In other words, she fights for the opportunity for people to know what true religion is, and she fights against the idea that the state can dictate to people what their ideas shall be.

America fights for the right of a man to try to build a better world; to try to build it in accordance with his own ideas as he sees injustice and attempts to cure it. It is basic to everything America has ever stood for, and when we forget this we will have forgotten much of our country.

She fights against the requirements that the common people of any nation must accept whatever is as being perfect. We fight for constitutional democracy as a form of government, for government by agreement, with the recognition of minority rights; and we fight against dictatorship, government by decree, by fear, and by force.

When we know these things; I mean really know them deep in our hearts; when they become seared into our very souls, then we will be ready to be men worthy of the times in which we live. It is still the men and their spirit and the dynamic that moves them that alone can conquer in the end.

For a while the armies of Napoleon were victorious. They were victorious, in my judgment, because those armies believed that they were spreading new ideas, ideas that had been born out of

the French Revolution. Napoleon eventually fell, and I believe the main reason he fell was because his own soldiers began to see that it was his personal ambition that moved him more than anything else. So it has been with all conquerors.

I believe America will win this war, because I believe that people will realize as time goes on what her cause really is, and will know that democracy, in which we believe, is something dynamic, not something static; something more precious than anything that mankind has ever known before.

Mr. Speaker I want to mention also what we must look ahead to in the future. I believe that now we are laying the foundation of the future, even as we fight this war. The things that we may do in this Congress are important to the health of our people 10 years from now. They are important to the structure of our industry, whether it shall be a great monopolistic industry or whether small business shall have a chance. They are important to the hope of our free farms. They are important to the chances of our financial soundness in the future.

No one knows how large our public debt may become before we are through with this war, but I think it is not out of line to say that if it takes it to win the war that debt may go to one hundred and fifty, two hundred, or perhaps even three hundred billion dollars. Suppose it should, because I think we need to face the greatest eventuality that may take place—suppose it should become \$300,000,000,000? The interest on \$300,000,000,000 at 2½ percent amounts to \$7,000,000,000 per year, more than we have ever raised in Federal taxes in a year up to date. I do not think this needs to happen.

I refer now to something I spoke briefly about a couple of days ago, namely, the proposal contained in legislation that will shortly come to the House that the Federal Reserve banks should purchase directly bonds from the Treasury.

I have to say these things because I think it is important for us to consider now the soundness of our financial situation in the future.

The source of Federal Reserve credit is the Nation's own credit. I have here in my hand an article written by Mr. E. A. Goldenweiser, chief of the research staff of the Federal Reserve Board, entitled "The Nature of Federal Reserve Banks." Touching this subject and from this release I read the following:

A Reserve bank, on the other hand, derives the funds available for its loans and investments from powers conferred upon it by Congress. The capital it has is prescribed by Congress and constitutes a small part of the funds at its disposal. The other source of funds of the Reserve bank is its power to issue notes and to accept and create deposits.

The Reserve banks will create deposits to buy these bonds, and if they need to they will issue Federal Reserve notes, and those Federal Reserve notes must be redeemed by the United States Treasury in "lawful money," as they say upon their face. It is the credit of the American people that will be borrowed from the Federal Reserve banks when they buy Treasury bonds. I do not object to their buying the Treasury bonds direct, but I

do say that if they are to buy those bonds, there should be not one dime of interest charged on those bonds. Those bonds should be non-interest-bearing certificates of indebtedness from the Treasury to the Federal Reserve banks, for surely it is impossible to defend a situation where the American people must pay interest upon their own credit, having permitted a private financial institution to create and use that credit.

Why do I talk about these things as much as I do? Because there is hope, it seems to me in the change I am continually suggesting, hope that we could free industry in America from bondage to finance; that we could put industry in a place where it could expand according to the soundness of its own ability, but expand and know that the consumer buying power of the Nation would expand in proportion; and only when that situation exists will you be able to have continuous prosperity. I make this suggestion over and over because I believe it could make it true, that whatever is physically possible for us would become financially possible. And it should be that our national bookkeeping will reflect the real facts of the substantial situation on the lands and in the factories of our country.

At the very least it is important while we are drafting young men—and maybe before long older ones—while we are imposing by far the highest taxes in our history, while we are requiring that industry in America be regimented to the war's end, at least while these things are done let us have the decency to stop imposing an unnecessary and unjustified interest burden on future generations by forcing the American people to borrow their own credit at interest from private institutions which, paradoxically enough, claim ownership of the public credit.

Another reason I am deeply concerned about this is because I look forward to the time when this whole monetary situation may be in the hands of one agency under the direct control of the Congress of the United States, so that the issuance of money, whether in the form of paper, demand deposits, silver, or anything else, may be in such way that we can have a dependable and stable relationship between real wealth on the one hand and monetary tokens on the other.

Let me read a little of the record. In December 1915 the buying power of the dollar was \$1.35 on a 1926 base. In May of 1920 it was 59 cents, less than half as much. In April 1921 it was back to \$1.01. In October 1929 it was \$1.05, and by February 1933 it had risen to \$1.67. By October 1940 it had fallen to \$1.27, and today it is about \$1.03. Such fluctuations in the purchasing power of money may amount to wreaking havoc with an economic system. Today, in the name of national need, we could at least take one step in the direction of a sound and stable dollar controlled in the interest of the people, put into circulation by the servants of the people, for the general welfare of all the people, and not any longer under circumstances where an interest burden is permanently fastened on the country by private agencies who usurp that essential governmental power.

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Corporation; to the Committee on Agriculture and Forestry.

By Mr. MEAD:

S. 2256. A bill making it unlawful for any person engaged in the performance of a defense contract to discriminate against or in favor of any employee because of his race, color, or creed; to the Committee on Education and Labor.

By Mr. CHAVEZ (for himself and Mr. Hatch):

S. 2257. A bill directing the Secretary of the Interior to issue to Anne Galbraith Macy a patent to certain lands in the State of New Mexico; to the Committee on Public Lands and Surveys.

By Mr. THOMAS of Oklahoma:

S. 2258. A bill for the relief of O. D. Coppage; to the Committee on Interstate Commerce.

By Mr. BILBO:

S. 2259. A bill to clarify and supplement provisions of law relating to the adjustment of tobacco, wheat, and cotton quotas and allotments in certain cases where farm land is acquired by the United States for defense purposes; to the Committee on Agriculture and Forestry.

MAINTENANCE OF PARITY PRICES FOR AGRICULTURAL COMMODITIES

Mr. NYE. Mr President, I introduce a joint resolution and ask that it be read and referred to the Committee on Agriculture and Forestry.

The joint resolution (S. J. Res. 132) to prohibit officers and agencies in the executive branch of the Government from seeking to prevent agricultural prices from reaching or remaining at parity or prices determined by the price-control legislation, was read the first time by its title, the second time at length, and referred to the Committee on Agriculture and Forestry, as follows:

Whereas there is evidence of an intention by various officers and agencies in the executive branch of the Government, by manipulative practices and otherwise, to prevent the prices of farm commodities from reaching or being maintained at parity levels or 110 percent thereof; and

Whereas such action would be contrary to the purposes and intent of legislation enacted by Congress and would seriously disrupt the production of agricultural commodities essential to the successful prosecution of the war: Therefore be it

Resolved, etc. That no officer or agency of the United States shall exercise any authority or perform any function in such a manner as is likely to prevent or with the purpose or intent of preventing the price of any agricultural commodity from increasing to the parity price or 110 percent thereof for such commodity or in such a manner as is likely to reduce, or with the purpose or intent of reducing, the price of any agricultural commodity to a price lower than the parity price therefor.

HOUSE BILL REFERRED

The bill (H. R. 5892) to regulate the placing of children in family homes, and for other purposes, was read twice by its title and referred to the Committee on the District of Columbia.

INDEFINITE POSTPONEMENT OF A BILL

Mr. SCHWARTZ. Mr. President, I ask unanimous consent that the bill (H. R. 2190) granting an increase of pension to Nellie J. Merriman be taken from the calendar and indefinitely postponed. Mrs. Merriman died on December 10, 1941.

The VICE PRESIDENT. Without objection, it is so ordered.

ADDITIONAL COPIES OF HOUSE REPORT NO. 1634—PROGRESS OF NATIONAL DEFENSE PROGRAM

The VICE PRESIDENT laid before the Senate House Concurrent Resolution 63, which was read, as follows:

Resolved by the House of Representatives (the Senate concurring), That 2,000 additional copies of House Report No. 1634, current session, as submitted to the House of Representatives pursuant to the resolution (H. Res. 162, current Congress), directing the Committee on Naval Affairs to conduct thorough studies and investigations of the progress of the national defense program with a view to determining whether such program is being carried forward efficiently, expeditiously, and economically, be printed for the use of the House Committee on Naval Affairs.

Mr. HAYDEN. I move that the Senate concur in the House concurrent resolution.

The motion was agreed to.

PENSIONS FOR CONGRESSMEN—ADDRESS BY SENATOR CAPPER

[Mr. CAPPER asked and obtained leave to have printed in the RECORD a radio address on the subject Pensions for Congressmen, delivered by him at Topeka, Kans., on February 8, 1942, which appears in the Appendix.]

EDITORIAL FROM ST. LOUIS POST DISPATCH ON PENSIONS FOR MEMBERS OF CONGRESS

[Mr. CAPPER asked and obtained leave to have printed in the RECORD an editorial from the St. Louis (Mo.) Post Dispatch of January 28, 1942, entitled "An All-Out Pension Precedent," which appears in the Appendix.]

ADDRESS BY SENATOR DAVIS AT MEDIA, PA.

[Mr. DAVIS asked and obtained leave to have printed in the RECORD an address delivered by him at Media, Pa., on February 5, 1942, which appears in the Appendix.]

ADDRESS BY HON. BERNARD SAMUEL, MAYOR OF PHILADELPHIA

[Mr. DAVIS asked and obtained leave to have printed in the RECORD an address delivered by Hon. Bernard Samuel, mayor of Philadelphia, at the Academy of Music, Philadelphia, Pa., on February 1, 1942, which appears in the Appendix.]

NATIONAL FREEDOM—ADDRESS BY DR. J. S. CLARK

[Mr. DAVIS asked and obtained leave to have printed in the RECORD an address delivered by Dr. J. S. Clark, president emeritus, Southern University, Baton Rouge, La. at the Academy of Music, Philadelphia, Pa., February 1, 1942, on the subject National Freedom, which appears in the Appendix.]

THE STIMULUS OF A HANDICAP—ADDRESS BY HON. JOSEPHUS DANIELS

[Mr. HILL asked and obtained leave to have printed in the RECORD an article relative to an address delivered by Hon. Josephus Daniels on the subject The Stimulus of a Handicap, which appears in the Appendix.]

EDUCATION OF CIVILIANS FOR NATIONAL SERVICE—ADDRESS BY DR. FRANK W. HART

[Mr. THOMAS of Utah asked and obtained leave to have printed in the RECORD an address on the subject The Education of Civilians for National Service, delivered by Dr. Frank W. Hart, of the School of Education,

University of California, Berkeley, Calif., which appears in the Appendix.]

ADDRESS BY LORD HALIFAX TO CHURCH CLUB OF NEW YORK CITY

[Mr. GEORGE asked and obtained leave to have printed in the RECORD an address delivered by Lord Halifax, British Ambassador to the United States, before the Church Club of New York City on February 2, 1942, which appears in the Appendix.]

CROWTH FACTOR IN BUTTERFAT FOUND—ARTICLE FROM OCONTO (WIS.) REPORTER

[Mr. WILEY asked and obtained leave to have printed in the RECORD a news article entitled "Growth Factor in Butterfat Found," published in the Oconto (Wis.) County Reporter of February 5, 1942, which appears in the Appendix.]

RETIREMENT PRIVILEGE FOR MEMBERS OF CONGRESS—EDITORIAL FROM ELKO (NEV.) DAILY FREE PRESS

[Mr. BUNKER asked and obtained leave to have printed in the RECORD an editorial from the Elko (Nev.) Daily Free Press entitled "Congressmen Show Poor Timing," which appears in the Appendix.]

UNION NOW—EDITORIAL FROM DETROIT FREE PRESS

[Mr. NYE asked and obtained leave to have printed in the RECORD an editorial from the Detroit Free Press of February 1, 1942, relative to Union Now, which appears in the Appendix.]

AMENDMENT OF CIVIL SERVICE RETIREMENT ACT—EDITORIAL FROM LABOR

[Mr. MEAD asked and obtained leave to have printed in the RECORD an editorial from Labor relative to the amendment of the Civil Service Retirement Act, which appears in the Appendix.]

AMENDMENT OF CIVIL SERVICE RETIREMENT ACT—MEMORANDUM FROM FEDERAL BAR ASSOCIATION

[Mr. MEAD asked and obtained leave to have printed in the RECORD a memorandum received by him from the Federal Bar Association in support of House bill 3487, to amend further the Civil Service Retirement Act, approved May 29, 1930, as amended, which appears in the Appendix.]

TRUMAN DATA STAND UP—ARTICLE FROM PM

[Mr. GILLETTE asked and obtained leave to have printed in the RECORD an article entitled "Truman Data Stand Up," published in PM of February 6, 1942, which appears in the Appendix.]

ORDER DISPENSING WITH CALL OF THE CALENDAR

The VICE PRESIDENT. The routine morning business is concluded. The calendar, under rule VIII, is in order.

Mr. HILL. I ask unanimous consent that the call of the calendar be dispensed with.

The VICE PRESIDENT. Without objection, it is so ordered.

PRODUCTION OF RUBBER FROM GUAYULE

The VICE PRESIDENT laid before the Senate the amendments of the House of Representatives to the bill (S. 2152) to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses, which were, on page 1, line 6, to strike

out "or by condemnation,"; on page 1, line 10, after "operation", to insert ", including but not limited to any such rights owned or controlled by the Intercontinental Rubber Co., or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents, and processes of the Intercontinental Rubber Co., or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Co. or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000"; on page 2, line 3, to strike out "Western Hemisphere" and to insert "United States"; on page 2, lines 9 and 10, to strike out "equipment and" and insert "equipment,"; on page 2, line 10, after "facilities", to insert ", and land for nurseries"; on page 2, line 11, to strike out "purchase,"; on page 2, line 12, to strike out "or by condemnation" and insert "for not exceeding 10 years"; on page 2, lines 14 and 15, to strike out "Western Hemisphere" and insert "United States"; on page 2, line 19, after "guayule", to insert ", and from Chrysanthamnus, commonly known as rabbit brush"; on page 2, line 22, after "guayule", to insert "and Chrysanthamnus, commonly known as rabbit brush"; on page 2, line 22, immediately following the preceding amendment, to insert ", and to purchase land as sites for processing plants"; on page 3, line 15, to strike out "Western Hemisphere" and insert "United States"; on page 3, lines 20 and 21, to strike out ", including citizens of countries in the Western Hemisphere,"; on page 4, to strike out lines 3 to 8, inclusive; on page 4, line 9, to strike out "(c)" and insert "(b)"; on page 4, line 12, to strike out "(d)" and insert "(c)"; on page 4, line 13, to strike out "(e)" and insert "(d)"; and to amend the title so as to read: "An act to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses."

Mr. DOWNEY. Mr. President, I desire to move the concurrence of the Senate in the amendments to this bill as passed by the House of Representatives. I may say that, from my viewpoint at least, the amendments are very satisfactory and not very important. The most important amendment is one, I am sure, to which Senators will agree, namely, the one which fixes a maximum amount in the sum of \$2,000,000 that the Government may pay for holdings of the Intercontinental Rubber Co., which now controls the patents and facilities in connection with the production of rubber from guayule.

The second most important amendment restricts the planting of the 75,000 acres to the United States when the bill as passed by the Senate provided the planting could be anywhere in the Western Hemisphere.

Those are the only two important amendments. The others are entirely technical and, in my opinion, entirely unobjectionable.

Unless there is objection, I now move concurrence of the Senate in these amendments.

The VICE PRESIDENT. The question is on the motion of the Senator from California.

Mr. HILL. Mr. President, will the Senator from California yield?

Mr. DOWNEY. Yes; I yield.

Mr. HILL. Am I to understand that these amendments are entirely and fully acceptable to the State Department?

Mr. DOWNEY. Yes. I was called this morning by Mr. Breckenridge Long, who told me that the State Department was somewhat worried because the House of Representatives had changed the provision of our bill allowing the planting of guayule rubber in the Western Hemisphere so as to confine it to the United States. I stated to Mr. Long that this is merely an emergency bill providing only for the planting of 75,000 acres; and necessarily all of the 75,000 acres is to be planted, I think, in California and in the Salinas Valley. I likewise stated to Mr. Long that under the present laws, and particularly under the rubber reserve, the Government of the United States now has the power and the funds to foster the development of a rubber industry anywhere in the world, including South America. As a matter of fact, the Agricultural Department right now is planting the hevea rubber in Central and South America; and if the Government desires, if the Department of Agriculture wants to recommend it and the State Department desires to go ahead, there is ample power in the Government right now to foster and develop the guayule rubber industry in northern Mexico or any other place.

So this change becomes entirely immaterial; and I may say that I should look with fearful apprehension upon any proposal to send the bill to conference, or back to the House of Representatives, because we have already delayed the bill almost to the danger point, so that if it is not passed almost immediately we might as well throw the project overboard.

Mr. HILL. Mr. President, will the Senator further yield?

Mr. DOWNEY. Yes; I yield.

Mr. HILL. I wonder if Secretary Long agreed with the Senator that the amendments were immaterial; that is, that the bill in its present form, as passed by the House, is entirely acceptable to the State Department.

Mr. DOWNEY. Yes; Mr. Long stated to me that I could state to the Senate that under my statement to him, which I have just repeated on the floor of the Senate, there would be no objection on the part of the State Department to concurrence of the Senate in the amendments of the House.

Mr. HILL. I will say to the Senator from California that I talked with Mr. Long early in the morning, and he stated that the bill was not acceptable to the State Department in the form in which it passed the House. As I understand, the Senator from California talked to Mr. Long after my conversation with him.

Mr. DOWNEY. I did.

Mr. HILL. And Mr. Long has authorized the Senator from California to say to the Senate that the bill as passed by the House is entirely and fully acceptable to the State Department?

Mr. DOWNEY. That is correct; and I suggest to the distinguished Senator that he call Mr. Long and verify what I have had to say.

The VICE PRESIDENT. The question is on agreeing to the motion of the Senator from California that the Senate concur in the amendments of the House of Representatives.

The motion was agreed to.

EMPLOYMENT OF MELVYN DOUGLAS IN O. C. D.

Mr. DOWNEY. Mr. President, I desire to make a brief statement which will not long detain the Senate, if this is the appropriate moment for it.

Mr. President, like the great majority of California citizens, I have been amazed and disheartened to observe the emotional energy being wasted over the appointment of Melvyn Douglas to the Office of Civilian Defense. I do not believe that any corresponding amount of intellectual fuel has been consumed; but since the whole tempest in a teapot is serving to distract our attention from vital war duties before us, I think it high time we ended it by the introduction of a few facts.

So far, the detractors of Mr. Douglas have relied more on clamor than on clarity, more on accusation than on accuracy. They have not understood Mr. Douglas' position because they were not interested in understanding, but only in condemnation. They have characterized him a Communist, when it has been obvious to any California newspaper reader that he has fought the Reds and their policies for many years past. They have implied that he obtained his post because he was one of Mrs. Roosevelt's protégés—as if he were some waif in need of a job, as if he were not ideally suited to the work to which he has been called. Let me tell you why I make that statement.

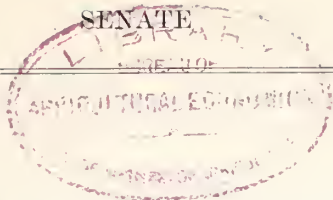
The Arts Council of the O. C. D. is confronted with this situation: Thousands of artists in every known medium have volunteered their services to this agency—writers, radio stars, vaudeville troupers, singers, dancers, cartoonists—representatives of every branch of the entertainment profession. They want to help; they do not know just how, but they want to do what they can for national defense.

Confronted with this offer of talent, what was the O. C. D. to do? Was it to turn away these volunteers and say that the Nation had no use for their abilities? I think this would have been wasteful and tragic for the country, and frustrating for the patriotic impulses of the performers themselves. The O. C. D. thought so, too; so its officials looked around for someone who could help to formulate a program which would utilize the good will and the great capacities of these volunteers.

They selected Melvyn Douglas. I think it was a natural and, so far as California is concerned, an inevitable choice. Why? Because Mr. Douglas has an extremely valuable and wide range of contacts all through the entertainment world; because the artists all respect him as a member of the board of the Screen Actors' Guild; because he is already experienced in precisely the kind of work

Feb. 17





PLANTING OF GUAYULE AND OTHER RUBBER-BEARING
PLANTS—VETO MESSAGE

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

RETURNING

WITHOUT APPROVAL THE BILL (S. 2152) ENTITLED "AN ACT TO
PROVIDE FOR THE PLANTING OF GUAYULE AND OTHER RUBBER-
BEARING PLANTS IN ORDER TO MAKE AVAILABLE A SOURCE
OF CRUDE RUBBER FOR EMERGENCY AND DEFENSE USES"

FEBRUARY 17 (legislative day, FEBRUARY 13), 1942.—Read, referred to the
Committee on Military Affairs, and ordered to be printed

To the Senate of the United States of America:

I return herewith, without approval, Senate bill 2152, entitled "An
act to provide for the planting of guayule and other rubber-bearing
plants in order to make available a source of crude rubber for emer-
gency and defense uses."

In the establishment of sources of crude rubber for emergency and
defense uses it is vital that all potential rubber-producing areas in
the Western Hemisphere be developed, regardless of whether within
or without the United States. The present bill excludes important
sources and we cannot afford to neglect any opportunity to obtain
maximum supplies of crude rubber.

On January 28, 1942, at the Third Meeting of the Ministers of
Foreign Affairs of the American Republics in Rio de Janeiro, Brazil,
there was passed unanimously by the 21 American republics a resolu-
tion that continental solidarity be translated into positive and effi-
cient action in the obtaining of strategic materials. Rubber, of
course, is one of the most important of these materials, and this bill
provides that guayule shall be a source of crude rubber for emergency
and defense uses.

The bill as it was amended by the House to limit the promotion
of guayule cultivation to the United States would contradict the
spirit of the resolution and seriously handicap our joint war effort.

Areas in this hemisphere outside of the United States, where the guayule plant is indigenous, are adapted to its cultivation, and it is desirable that the provisions of this bill be extended to include those countries.

In order to avoid delay, I recommend that the Congress give immediate reconsideration to the proposal and take prompt action on a bill similar to the bill in question but applicable to all the American republics.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, *February 17, 1942.*
(Enclosure: Senate bill 2152.)

S. 2152

SEVENTY-SEVENTH CONGRESS OF THE UNITED STATES OF AMERICA; AT THE SECOND SESSION, BEGUN AND HELD AT THE CITY OF WASHINGTON ON MONDAY, THE FIFTH DAY OF JANUARY, ONE THOUSAND NINE HUNDRED AND FORTY-TWO

AN ACT To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, the right to operate under processes or patents relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation, including but not limited to any such rights owned or controlled by the Intercontinental Rubber Company, or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents and processes of the Intercontinental Rubber Company, or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Company or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000;

(2) To plant, or contract for the planting of, not in excess of seventy-five thousand acres of guayule in areas in the United States where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment, facilities, and land for nurseries;

(3) To acquire by lease, or other agreement, for not exceeding ten years, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the United States where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule, and from *Chrysothamnus*, commonly known as rabbit brush; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule, and *Chrysothamnus*, commonly known as rabbit brush, and to purchase land as sites for processing plants;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of seventy-five thousand acres of guayule inside the United States; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule.

SEC. 2. (a) The Secretary is authorized to appoint such employees as may be necessary for carrying out the provisions of this Act. Such appointments may be made without regard to the provisions of the civil-service laws, and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments so made by the Secretary shall be made only on the basis of merit and efficiency.

(b) The Secretary may delegate any of the powers and duties conferred on him by this Act to any agency or bureau of the Department of Agriculture.

(c) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers and employees thereof, in carrying out the provisions of this Act.

(d) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this Act, any funds made available to him under this Act.

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this Act. Any amounts so appropriated, and any funds received by the Secretary under this Act, shall remain permanently available for the purposes of this Act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

SAM RAYBURN,
Speaker of the House of Representatives.

H. A. WALLACE,
Vice President of the United States and President of the Senate.

[Endorsement on back of bill:]

I certify that this Act originated in the Senate.

EDW. A. HALSEY, *Secretary.*



modest annuity to have the chance to qualify upon payment of \$500 a year.

As an example of the extent to which the legislation was misunderstood in some quarters, I ask permission to insert at this point in the *RECORD* an article published in this week's issue of *The Progressive*. Those who choose to read my statement will find this especially interesting, and will gain some idea of how much misunderstanding has existed.

The VICE PRESIDENT. Is there objection?

There being no objection, the article was ordered to be printed in the *RECORD*, as follows:

[From the *Progressive* of February 14, 1942]

PENSIONS FOR CONGRESSMEN

The terrifying power of the press to twist, distort, and destroy was never more apparent than it was a couple of weeks ago when it succeeded in overriding the will of Congress and thwarting cost of production for the Nation's farmers. This power was again in evidence last week when newspapers all over the country used their ugliest weapons to denounce legislation which enables Members of Congress to qualify for retirement pensions.

Regardless of the merits of the legislation, the country was given a wholly distorted picture of its provisions. It was said that Congressmen could qualify for a \$5,000-a-year pension for life by paying in only 5 percent of 1 day's pay, that the cost would run to \$30,000,000 a year, and that low-paid Federal employees were being denied the benefits of the act.

The facts about the legislation, as released by the United States Civil Service Commission, are these. The bill was a general measure dealing with the pension system for Federal employees—a system which now covers 1,250,000 Government workers. Failure to include Members of Congress, the Commission said, would be an unjustifiable discrimination.

Moreover, the cost will be \$80,000 annually and not \$30,000,000, the Commission pointed out. Members would contribute 5 percent of their salary, or \$500 annually, which is regarded as a higher amount than they would have to pay for private insurance in most cases. Benefits, of course, would not be paid to Congressmen who do not elect to come under this system and the many who would not be eligible because they would not have served long enough.

Mr. MALONEY. Mr. President, I do not want the impression to "go out" that I voted for this legislation under any misunderstanding or misapprehension. I clearly understood it. I felt then, and feel now, that it was fair and proper legislation. It ceased to become wise when a large part of the people of the country became provoked and suspicious. Most of the newspapermen with whom I have talked about the matter during the past week or two, and who very thoroughly understand the retirement program and Congress, felt that it was justifiable. I think that they now feel, as I do, that the effect of the legislation makes it extremely wise that we quickly pass a bill which will repeal it.

It is interesting to note that there was no opposition to the bill on the part of the public, at least insofar as the *RECORD* shows, before it came out of the committees. It is interesting to note that many prominent organizations and individuals, aside from Congress, favored the legislation. Aside from the committee

members, few, if any, Members of the Senate knew what was in the bill until it was reported. It was not properly debated, as we all now know, and it seemed like routine legislation until a question was raised by the conscientious junior Senator from Virginia.

As the legislation came to us, without advance study on our part, we were aware of the fact that members of the Army and Navy, all of them, and members of the judiciary, all of them, and almost every governmental employee were enjoying a like privilege—or a much more generous one. We knew that school teachers and policemen and firemen and State employees, and in some instances elected State officials, were enjoying a like opportunity. We had never heard a criticism, or at least I had not, of the fact that the State officials of New York had been qualified for a similar opportunity for a great many years. We had never heard a serious criticism of retirement benefits from any source. Workmen in private industry, the great railroad organizations, and now the great majority of working people throughout the country have similar annuity or retirement benefits.

The only cry has been that Congress, because Congress makes the laws, should be excluded. Frankly, I cannot clearly see why. The claim is made that Members of Congress would be less able to resist the appeal of other individuals and groups, or the pressure of such groups, if Congress itself voted to allow its Members to participate in an annuity plan. That claim seems nonsensical to me. If there are men susceptible to pressure from other groups, they are just as susceptible to such pressure because of a desire to protect their positions. If the argument were reversed, it might be a little more plausible. For the most part, Members of Congress are not readily susceptible to pressure. For the most part, Members of Congress vote their convictions.

Of course, Members of Congress make mistakes. Legislators from the farm area, aware of the acute problems of the farmer, are in some instances unwittingly prejudiced in favor of the farmer. The same situation is true as it applies to legislators representing industrial areas. They have seen the suffering caused by unemployment and underpayment, and they may have a prejudice, and an everlasting hope that what mistakes they make may be on the side of those who work. Men who have served in the wars may be biased on the side of their earlier comrades in arms—and that is natural. All of us are to some degree afflicted with the frailties of human nature; but all of us, to the very last man, are first for the protection of our country.

So as to attempt to lift existing suspicion as quickly as is possible, I respectfully urge my colleagues to let the vote for repeal be unanimous. I do not ask them to do it because they were wrong in voting for the legislation, for I do not think they were wrong, but because I feel the country will best be served by taking certain language from the law.

It may not be regarded as of especial importance, but I ask unanimous consent

to have printed in the *RECORD* at this point an extract from a radio address relating to this subject, made several days ago by Fulton Lewis, Jr.

The VICE PRESIDENT. Without objection, it is so ordered.

The matter referred to is as follows:

CONGRESSIONAL PENSIONS

In Congress, Representative JACK NICHOLS, of Oklahoma, began a personal drive to repeal the recent bill in which Members of Congress voted pensions for themselves. He began circulating a petition demanding that the Civil Service Committee of the House of Representatives bring out a bill at once to repeal those pensions. He told me that he expects at least 250 signatures on it by Tuesday night, and with that he believes the committee will produce the bill.

It is entirely possible that he will get those 250 signatures, because a great many Members of Congress are feeling the sting of public criticism and even public ridicule, and many who voted for the congressional pensions now are ready to unvote them.

As a matter of fact, it seems a shame, because a great deal of the criticism has been totally unfair and totally uninformed. Writers and speakers who haven't the courage or the diligence to dig into vital weaknesses of the Government war effort, which really need correcting, have a holiday with Congress because Congress is a free target. It's a big, scattered thing, with no spokesman and no means of striking back, whereas if the brave critics went to work on specific cases they might get a flare-back.

The tragedy is that Congress is democracy. They voted themselves in this pension bill only the same identical pension arrangement that they voted every clerk and janitor and appointed employee of the Federal Government 20 years ago. They have to pay the same percent of their salary into the pension fund, and their pension is rated on the same scale as the pension of a stenographer or any other Government employee.

Specifically, they have to pay \$500 a year into the fund. And if they are in Congress for 35 years, paying that yearly premium all the way through, they get a pension of about \$4,000 for the rest of their lives when they reach the age of 62.

I've seen many a Member of Congress spend his whole life in the House or Senate, and finally go out of office a broken, penniless old man, and it's hard to understand why they shouldn't be allowed the same pension arrangement the regular civil-service employees enjoy as long as they pay their share of it. Federal judges, let me remind you again, are paid their full salary for life, and they make no contributions whatsoever. Army and Navy officers get retired pay for life, and they make no contributions.

Mr. MALONEY. I am about to conclude, Mr. President, but before I conclude I want to emphasize the fact that the statement I am making is not by way of an apology. We are engaged in a tremendous undertaking. We are fighting for our lives. To be successful we must be determined and united. Those opposed to us in this terrific conflict—the worst in all history—are fighting for an ideal. It is a base and pagan and vicious ideal; but they are united in a frantic and fanatical effort to overcome free people. We can turn them back—and we will turn them back—but we need be together, all together, and strong. Right now we are suffering from misunderstanding and confusion and lack of preparation.

I have tried to contribute to the effort to be strong. I have urged preparedness

from the first day I came to Congress, and so long ago as 1934 was publicly condemned in my State because I insisted upon a stronger, a much stronger, national defense. It is a few years now since I offered legislation which would prevent the shipment of scrap iron to foreign countries. Two years have passed since I urged, in committees of the Senate, that we survey our strategic materials and our industrial situation. Years have passed since I urged the building up of our stock piles and the expenditure of more millions for educational orders. More than a year has passed since I pleaded for the construction of synthetic rubber plants—even though I admitted that they might never be used.

Mr. President, I now have no criticism to make of anyone's short-sightedness but my own. I want to contribute to the correction of any mistakes we have made—or that I have made—before I undertake to try to correct the mistakes of another. Once more I express the hope that my colleagues will vote unanimously to repeal the retirement benefits opportunity now by law afforded to Members of Congress.

PRODUCTION OF RUBBER FROM GUAYULE (S. DOC. NO. 182)

The VICE PRESIDENT laid before the Senate the following message from the President of the United States, which was read and, with the accompanying bill, referred to the Committee on Military Affairs and ordered to be printed:

To the Senate of the United States of America:

I return herewith, without approval, Senate bill No. 2152, entitled "An act to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses."

In the establishment of sources of crude rubber for emergency and defense uses it is vital that all potential rubber-producing areas in the Western Hemisphere be developed, regardless of whether within or without the United States. The present bill excludes important sources, and we cannot afford to neglect any opportunity to obtain maximum supplies of crude rubber.

On January 28, 1942, at the third meeting of the Ministers of Foreign Affairs of the American Republics in Rio de Janeiro, Brazil, there was passed unanimously by the 21 American republics a resolution that continental solidarity be translated into positive and efficient action in the obtaining of strategic materials. Rubber, of course, is one of the most important of these materials, and this bill provides that guayule shall be a source of crude rubber for emergency and defense uses.

This bill as it was amended by the House to limit the promotion of guayule cultivation to the United States would contradict the spirit of the resolution and seriously handicap our joint war effort.

Areas in this hemisphere outside of the United States, where the guayule plant is indigenous, are adapted to its cultivation, and it is desirable that the

provisions of this bill be extended to include those countries.

In order to avoid delay, I recommend that the Congress give immediate reconsideration to the proposal and take prompt action on a bill similar to the bill in question but applicable to all the American republics.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, February 17, 1942.
[Enclosure: Senate bill No. 2152.]

Mr. DOWNEY. Mr. President, there has just been read at the desk a message from the President of the United States vetoing the guayule-rubber bill which was passed by the Senate a few days ago. The reason for the veto is that the measure grants authority to the Department of Agriculture to plant not to exceed 75,000 acres of the guayule in the United States rather than in the Western Hemisphere. The bill as originally passed by the Senate gave to the Department of Agriculture the power to carry on this culture any place in the Western Hemisphere. The House of Representatives, in passing the Senate bill, amended it to restrict the planting to the United States. I consulted with one of the Assistant Secretaries of State and likewise with representatives of the Department of Agriculture, who, desiring very speedy action on the bill, assured me it would be satisfactory to those Departments if we accepted the amendment of the House of Representatives. Since that time I have talked to Under Secretary Welles, who tells me there was a misunderstanding in the Department of State, and that the bill, as passed, restricting the planting to the United States, would seriously interfere with the program of Western Hemisphere economy and defense which is being promoted by our Government, and the veto message of the President is based upon that suggestion.

Mr. TAFT. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. TAFT. Is there any reason in the world why we should raise guayule in some South American country? Why, under existing law, cannot the President loan to such country the money, and let it raise its own guayule plants? We can finance the project. I do not see any reason for the necessity of vetoing this important measure at this time, when it is perfectly easy, if we want to help Mexico, let us say, to raise guayule, to lend Mexico the money to go ahead and do it. Can the Senator see any reason why that could not be done even if this bill had become a law?

Mr. DOWNEY. Mr. President, I will say to the Senator from Ohio that I agree with him that there is at the present time under our laws ample opportunity for our Government to prosecute any kind of rubber-raising program any place in Latin America, and likewise money is available, but I should like to make an appeal to the distinguished Senator from Ohio. The Department of State believes that even the appearance of developing a specialized defense program in the United States, in face of the agreement recently made with all the countries of the Western Hemisphere for solidarity and defense, would be a mistake. I wish

to appeal to the Senate now to acquiesce in the view of the other branch of the Government. I direct my remarks particularly to the Senator from Ohio because I realize the basis of what he says.

Mr. TAFT. I regret only the delay. I am perfectly willing to vote for the bill in either form.

Mr. DOWNEY. I deeply appreciate that statement. I shall not longer detain the Senate.

I ask unanimous consent for the immediate consideration and passage of the bill in the form in which it was when it was originally passed by the Senate. It has been through the committee and has been considered. It now comes back in practically the same form in which we originally passed it, which calls for the change from "United States" to "Western Hemisphere" in three places in the bill, and the insertion of the clause "including citizens of countries in the Western Hemisphere," which would give the Department of Agriculture the right to employ the nationals of other countries in developing a rubber supply in those countries.

Mr. AUSTIN. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. AUSTIN. Let me ask the distinguished Senator from California, who is sponsoring this legislation, whether since the bill was acted upon by the Senate he has been informed that guayule could be raised with profit in the Virgin Islands, which islands are outside the boundaries of continental United States?

Mr. DOWNEY. No; I have not. I rather doubt it. I understand that the Virgin Islands are adapted to raising Hevea rubber, which is raised in middle Asia, and which is now being planted in Brazil. I do not think the climate in the Virgin Islands is dry enough for raising the guayule rubber shrub there. However, does not the Senator believe that the term "Western Hemisphere" would include the Virgin Islands?

Mr. AUSTIN. Yes, indeed. I recognize the twentieth meridian of longitude as the boundary of the Western Hemisphere on the east. I think that boundary is well established. I have no objection.

Mr. McNARY. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. McNARY. What is the Senator's request?

Mr. DOWNEY. I am now asking unanimous consent that I be allowed to introduce the bill in a form to meet the President's veto message and for its immediate consideration and passage. I make that request upon the basis that in all practical aspects the new bill will be the bill formerly passed by the Senate.

The VICE PRESIDENT. Is there objection to the request of the Senator from California?

Mr. McNARY. Mr. President, just a moment. There is no reason for such tremendous haste. It is very unusual to ask unanimous consent to introduce a bill and the next moment ask for its immediate consideration and passage. Of course, I have no objection to the introduction of the bill, but it certainly would

not be right to create a precedent by passing a bill immediately after its introduction. The rule clearly requires reference to a committee and a report from the committee and that the bill go to the calendar. I object to going any further than the introduction of the bill. I probably will favor the bill, but I do not favor the process by which it is attempted to bring it before the Senate.

Mr. HILL. Mr. President, will the Senator yield?

Mr. DOWNEY. I yield.

Mr. HILL. As I understand, the bill which the Senator proposes to introduce would be in exactly the same form and in precisely the same language as the bill which has already been considered by the Senate Committee on Military Affairs, favorably reported by that committee, and passed by this body.

Mr. McNARY. The able Senator from California made his position very clear. I understand what he wants. I am objecting to the manner in which it is attempted to obtain immediate consideration of the bill. I am not prepared to establish a precedent by having a veto message read and then having some Senator ask permission to introduce a bill to conform to the veto criticisms, and for its immediate consideration and passage, even though it be patterned after a bill which was once passed by the Senate. I shall adhere to my views.

Mr. DOWNEY. Let me say to the distinguished Senator that of course I immediately see the justice and logic of his position. I should not be asking this extraordinary procedure except for two reasons. The first is that in all practical aspects the bill has heretofore been passed by this very body. There are one or two immaterial changes in the bill now presented, to conform to the bill as amended by the House of Representatives, but those changes are not material. Even that would not lead me to make this request, except that we are at war. Rubber is a vital need; and every day which is lost imperils the guayule-seed program.

It is true, Mr. President, that through the processes of democracy almost 3 months have been lost since this program was started. Everyone is for the bill. Everyone has been helpful and courteous; but through the workings of democracy it has now been delayed to such a point that the Department of Agriculture, which would employ three or four thousand men in this activity, would have the utmost difficulty in setting out 700 acres of seedbed early this spring. If it were not for the fact that we are at war, that we need rubber, and that everyone is for the bill, I should not be making this request. As the distinguished Senator from Oregon knows, I have often sought his advice, and I have always followed it, because it has always been good. Of course, if he believes that we must maintain the principle for which he is speaking, I have nothing to do but happily acquiesce.

Mr. McNARY. I do not want the Senator to establish a precedent by not following my advice. Therefore I shall insist upon my objection.

The VICE PRESIDENT. Objection is heard. Without objection, the bill will be received and appropriately referred.

The bill (S. 2282) to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses was read twice by its title and referred to the Committee on Military Affairs.

EXTENSION OF WORKWEEK TO 48 HOURS

Mr. REED. Mr. President, I shall detain the Senate only a few moments. On the 28th of January I introduced a very short bill amending the Fair Labor Standards Act of 1938 in paragraph 7 (a), in which, for the duration of the war and 6 months thereafter, a different standard of payment of overtime would be established. That bill has caused a great deal of comment the country over. There has been considerable newspaper discussion. I have received thousands of letters upon the subject. The writers of some of them assumed that the bill was an antilabor measure, or that it would penalize labor.

Mr. President, the bill is not an antilabor measure. I am not an antilabor Senator. All my life I have advocated and defended the right of labor to organize, to bargain collectively, and even to strike as a weapon of offense or defense, although on that point I hasten to add that during an emergency such as we face at present I think that the ultimate weapon of labor should be used very sparingly, if at all.

Mr. President, in order that the RECORD may show the bill, together with the explanation, I ask unanimous consent that Senate bill 2232 be printed in the RECORD at this point as a part of my remarks.

The VICE PRESIDENT. Is there objection?

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

Be it enacted, etc., That no employer shall be deemed to have violated section 7 (a) of the Fair Labor Standards Act of 1938 by employing any employee for a workweek in excess of 40 hours during the remainder of the present war and for a period of 6 months thereafter, if such employee receives compensation for his employment in excess of 48 hours during such workweek at a rate not less than one and one-half times the regular rate at which he is employed.

Mr. REED. Just one further word, Mr. President. Among the very welcome comments on this particular bill is an editorial in the New York Times of yesterday morning. The editorial is a more lucid explanation of the bill, of the Wage-Hour Act, and of the present situation, than any I could make myself. So I adopt it as my own expression; and I ask unanimous consent that the editorial from the New York Times of February 16, entitled "Fighting the War on a 40-Hour Week," be included in my remarks at this point.

The PRESIDING OFFICER (Mr. BONE in the chair). Is there objection?

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

[From the New York Times of February 16, 1942]

FIGHTING THE WAR ON A 40-HOUR WEEK

There are still a few astonishing contrasts between the administration's public pronouncements and some of its actual policies. To cite but one example—though a tremendously important one—the same administration that is still expressing concern regarding the supposed complacency of the country at large is itself insisting on retention of the 40-hour week. The 40-hour week provisions in the Wages and Hours and Walsh-Healey Acts are retained at a time when they have become inexcusable on any ground.

There is some difficulty in securing clarity of thought about these provisions because of their ambiguous nature. Administration spokesmen have sometimes defended them as a necessary limitation of actual hours of work. When they have felt this position to be untenable they have in effect declared that they are not primarily provisions restricting hours but primarily provisions regulating wages. When we examine them from either aspect, however, we find that they are, under present conditions, indefensible.

Let us examine them first for what they ostensibly are, and for what most of the Congressmen who voted for them thought they were when they passed them—genuine restrictions on hours. At the time that the present wage-hour law was being debated in Congress one supporter of the bill after another rose to say flatly that the hour provisions "prohibited" employment for more than 44 hours a week in the first year, 42 hours in the second, and 40 hours thereafter. The theory behind this part of the bill, however questionable, was that the way to solve unemployment was to force the employment of more men to do the same amount of work. These provisions were inserted, certainly, not on the assumption of a labor shortage, such as is now rapidly developing under the tremendous impact of an all-out war, but on the assumption of a labor surplus.

When the type of unemployment conditions under which this act was passed ceased to exist, however, administration spokesmen turned to a new theory. It was that any increase above a 40-hour week would actually decrease production. In December of 1940 the Secretary of Labor called for "realistic recognition of the wartime necessity of shorter hours for greater production." Now experience shows, and everyone of sense recognizes, that when working hours are extended beyond a certain point fatigue sets in and the hourly rate of production declines. When working hours are stretched still further even total production declines. But experience has shown also, and common sense recognizes, that this maximum-production point is substantially above 40 hours a week. This point naturally varies with the type of work being done. A recent study by the Twentieth Century Fund concluded that the maximum-output week lies between 48 to 60 hours for most occupations in the United States.

By retaining the 40-hour week we are clearly restricting our own production. If the maximum-production week is 60 hours, then by a 40-hour week we are keeping ourselves from a 50-percent increase in production. Even if the maximum-production week is only 48 hours, we are keeping ourselves from at least a 20-percent increase in production. No other wartime nation but France deliberately hobbled itself like this. The example of France is not auspicious.

There is no longer much room for argument on this point. The administration has been giving ground, however belatedly and inadequately. It has increased labor hours from 40 to 48 in Government arsenals and shipyards and to 44 for other Government workers. Even Secretary Perkins recently asked for a relaxation of State labor stand-

ards where these restricted production, though everyone knows that such restrictions are trivial compared with those in the Federal Wages and Hours Act, concerning which no suggestion for amendment has been made from administration sources.

Instead, another new defense of the hour provisions in this act has been found by administration spokesmen. It is that these do not really restrict hours at all because there is nothing to prevent an employer from working his employees even 60 or 80 hours a week, if he will only pay them time and a half for overtime. This view, set forth frequently by Secretary Perkins and other administration spokesmen, is utterly unrealistic. It ignores the very purpose of the law originally, which was to make it prohibitively costly for employers to maintain a working week of more than 40 hours.

The employer was forced to pay a penalty of 50 percent for maintaining longer hours when that was considered unpatriotic. He is now forced to pay a penalty of 50 percent on longer hours even when the Government urges him for patriotic reasons to extend those hours. Looking at the matter from the other side, the Government is now saying, in effect, that while longer hours are necessary and every one must make sacrifices and inflation is deplorable, workers who work 48 hours cannot do so unless they are granted a wage advance of 50 percent for the last 8 hours. This further wage increase must be granted no matter how high the regular rate of pay of the particular workers concerned already happens to be. The cost of this legally compulsory wage advance must be added to the Nation's war bill.

In Great Britain the work week is now between 55 and 60 hours. Some estimates put the work week in Germany between 60 and 70 hours. A recent Gallup survey found that the average American believes that a 60-hour week is now necessary. Surely a compromise amendment is possible here. Congress should pass the moderate bill introduced by Senator REED of Kansas which proposes that overtime rates shall not be legally compulsory until an employee has worked 48 hours in 1 week.

This would not be asking labor to work more hours for less pay. It would not be asking labor to work more hours for the same pay. It would be asking labor to work more hours—up to 48—for proportionately higher pay, though not for disproportionately higher pay. This would allow increased production without forcing up excessively the unit cost of production. It would allow small firms to work longer hours without prohibitive penalties. It would permit thousands of workers to earn more through a longer week, an opportunity they are now denied because of penalty rates. It would permit three shifts instead of four shifts on a 24-hour day. We should not, in short, be cutting down our own labor force by nearly 20 percent at a time when it is the very height of folly to do so.

Mr. REED. Mr. President, I expect to address the Senate at some length upon this bill at a later date—that is, provided it should be reported out of the committee to which it has been referred; perhaps I shall take the floor for discussion anyway. But for today I think the statement I have made explaining the bill will carry information to the country which will be helpful to a better understanding of just what is proposed. This is neither a pro-labor nor an anti-labor measure. It is an American program to be used in the emergency existing in democratic America.

RETIREMENT PRIVILEGE FOR MEMBERS OF CONGRESS

Mr. LEE. Mr. President, every day the Congress delays the repeal of the

so-called Congressional pensions law it is damaging to the morale of the country and to national unity. I had hoped that the Civil Service Committee would bring in a bill today, but I understand that they are not to meet again until next Tuesday, a week from today.

I am committed to offer an amendment repealing the provision of the law in question to the first bill that comes along. The first bill that has come along is the pending appropriation bill, and, of course, an amendment of this kind could not be offered to that bill unless unanimous consent were given. I understand that a point of order would be raised against it.

The majority leader, I understand, has an amendment to offer which would accomplish the same purpose today and has tried to get an agreement concerning it. I do not know whether we will finish the appropriation bill today, but, out of order, I wish to present the amendment, to be printed and lie on the table, and serve notice that I intend to offer it to the first bill that comes along to which it is appropriate.

Now, Mr. President, if the Senator will yield for the purpose, I should like to make a motion, which cannot be voted on, as I understand, until tomorrow, or at least until 1 day has elapsed, that the rule which prevents this amendment from being offered to an appropriation bill be suspended. Will the Senator yield for me to make that motion? It cannot be voted on until tomorrow.

Mr. CLARK of Missouri. Mr. President, a parliamentary inquiry. Must not such a notice be presented in writing?

The PRESIDING OFFICER. The Chair understands that such a motion has to be in writing.

Mr. LEE. I will put it in writing and send it to the desk.

Mr. BARKLEY. Mr. President, if the Senator will yield, let me say that I already have such a motion in writing, which I intend to offer.

Mr. LEE. I yield, and defer to the majority leader.

Mr. LEE subsequently submitted the following notice in writing:

In accordance with rule XL of the Standing Rules of the Senate, I hereby give notice in writing that it is my intention to move to suspend paragraph 4 of rule XVI for the purpose of proposing to the bill (H. R. 6548) making appropriations to supply deficiencies in certain appropriations for the fiscal year ending June 30, 1942, and for prior fiscal years, to provide supplemental appropriations for the fiscal year ending June 30, 1942, and for other purposes, the following amendment, namely:

At the proper place in the bill, insert the following new section:

"SEC. —. Effective as of January 24, 1942, subsection (a) of section 3 of the Civil Service Retirement Act, approved May 29, 1930, as amended, is amended to read as follows:

"(a) This act shall apply to all officers (except elective officers) and employees in or under the Executive, judicial, and legislative branches of the United States Government, and to all officers and employees of the municipal government of the District of Columbia: *Provided*, That this act shall not apply to any such officer or employee of the United States or of the municipal government of the District of Columbia subject to another retirement system for such officers and employees of such governments: *Provided fur-*

ther, That this act shall not apply to any officer or employee in the legislative branch of the Government within the classes of officers and employees which were made eligible for the benefits of this act by the act of July 13, 1937, until he gives notice in writing to the disbursing officer by whom his salary is paid of his desire to come within the purview of this act; and any officer or employee within such classes may, within 60 days after January 24, 1942, withdraw from the purview of this act by giving similar notice of such desire. In the case of any officer or employee in the service of the legislative branch of the Government on January 24, 1942, such notice of desire to come within the purview of this act must be given within the calendar year 1942. In the case of any officer or employee of the legislative branch of the Government who enters the service after January 24, 1942, such notice of desire to come within the purview of this act must be given within 6 months after the date of entrance to the service."

Mr. LEE also submitted an amendment intended to be proposed by him to House bill 6548, the first deficiency appropriation bill, 1942, which was ordered to lie on the table and to be printed.

(For text of amendment referred to, see the foregoing notice.)

Mr. BYRD. Mr. President, on behalf of the Senator from Ohio [Mr. BURTON], the Senator from North Carolina [Mr. BAILEY], the Senator from Colorado [Mr. JOHNSON], and myself, I desire to offer to the pending bill the same repeal resolution that was offered by the Senators I have mentioned nearly 2 weeks ago, and which is now before the Senate Committee on Civil Service. The only difference, Mr. President, between this amendment and the one which is now pending before the Civil Service Committee is that this amendment includes members of the Cabinet. Therefore, the amendment as it now reads will provide for excluding from the pension provisions of the law the President, the Vice President, the Members of the House, the Members of the Senate, and the members of the Cabinet. I offer that amendment to lie on the table, to be considered at the appropriate time.

Mr. President, I sent to the desk a notice in writing of a motion intended to be made by me hereafter to suspend paragraph 4 of rule XVI for the purpose of proposing to the pending bill the amendment I have indicated.

The PRESIDING OFFICER. The notice will be printed in the RECORD.

The notice in writing submitted by Mr. BYRD is as follows:

In accordance with rule XI, of the Standing Rules of the Senate, I hereby give notice in writing that it is my intention to move to suspend paragraph 4 of rule XVI for the purpose of proposing to the bill (H. R. 6548) making appropriations to supply deficiencies in certain appropriations for the fiscal year ending June 30, 1942, and for prior fiscal years, to provide supplemental appropriations for the fiscal year ending June 30, 1942, and for other purposes, the following amendment, namely:

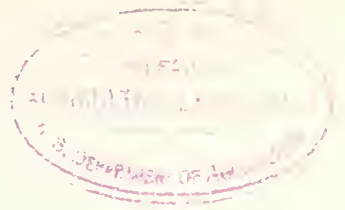
At the proper place in the bill, insert the following new section:

"Sec. (a) The last sentence of subsection (c) of the first section of the Civil Service Retirement Act approved May 29, 1930, as amended, is amended by striking out 'any elective officer.'

"(b) Subsection (a) of section 2 of such act, as amended, is amended by striking

77TH CONGRESS
2D SESSION

S. 2282



IN THE SENATE OF THE UNITED STATES

FEBRUARY 17 (legislative day, FEBRUARY 13), 1942

Mr. DOWNEY introduced the following bill; which was read twice and referred to the Committee on Military Affairs

A BILL

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, the right to operate under processes or patents relating
7 to the growing and harvesting of guayule or the extraction
8 of rubber therefrom, and such properties, processes, records,
9 and data as are necessary to such operation, including but
10 not limited to any such rights owned or controlled by the

1 Intercontinental Rubber Company, or any of its subsidiaries,
2 and all equipment, materials, structures, factories, real prop-
3 erty, seed, seedlings, growing shrub, and other facilities,
4 patents and processes of the Intercontinental Rubber Com-
5 pany, or any of its subsidiaries, located in California, and for
6 such rights, properties, and facilities of the Intercontinental
7 Rubber Company or any of its subsidiaries, The Secretary is
8 authorized to pay not to exceed \$2,000,000;

9 (2) To plant, or contract for the planting of, not in
10 excess of seventy-five thousand acres of guayule in areas in
11 the Western Hemisphere where the best growth and yields
12 may be expected in order to maintain a nucleus planting
13 of guayule to serve as a domestic source of crude rubber as
14 well as of planting material for use in further expanding
15 guayule planting to meet emergency needs of the United
16 States for crude rubber; to establish and maintain nurseries to
17 provide seedlings for field plants; and to purchase necessary
18 equipment, facilities, and land for nurseries;

19 (3) To acquire by lease, or other agreement, for not
20 exceeding ten years, rights to land for the purpose of making
21 plantings of guayule; to make surveys, directly or through
22 appropriate Government agencies, of areas in the Western
23 Hemisphere where guayule might be grown; and to establish
24 and maintain records indicating areas to which guayule cul-
25 tivation could be extended for emergency production;

1 (4) To construct or operate, or to contract for the opera-
2 tion of, factories for the extraction of rubber from guayule,
3 and from Chrysothamnus, commonly known as rabbit brush;
4 and to purchase, operate, and maintain equipment for the
5 harvesting, storing, transporting, and complete processing of
6 guayule, and Chrysothamnus, commonly known as rabbit
7 brush, and to purchase land as sites for processing plants;

8 (5) To conduct studies, in which he may cooperate with
9 any other public or private agency, designed to increase the
10 yield of guayule by breeding or by selection, and to improve
11 planting methods; to make surveys of areas suitable for cul-
12 tivating guayule; to make experimental plantings; and to
13 conduct agronomic tests;

14 (6) To conduct tests, in which he may cooperate with
15 any other public or private agency, to determine the quali-
16 ties of rubber obtained from guayule and to determine the
17 most favorable methods of compounding and using guayule
18 in rubber manufacturing processes;

19 (7) To improve methods of processing guayule shrubs
20 and rubber and to obtain and hold patents on such new
21 processes;

22 (8) To sell guayule or rubber processed from guayule
23 and to use funds so obtained in replanting and maintaining
24 an area of seventy-five thousand acres of guayule inside
25 the Western Hemisphere; and

1 (9) To exercise with respect to rubber-bearing plants
2 other than guayule the same powers as are granted in the
3 foregoing provisions of this section with respect to guayule.

4 SEC. 2. (a) The Secretary is authorized to appoint
5 such employees including citizens of countries in the West-
6 ern Hemisphere as may be necessary for carrying out the
7 provisions of this Act. Such appointments may be made
8 without regard to the provisions of the civil-service laws,
9 and the compensation of the persons so appointed may be
10 fixed without regard to the provisions of the Classification
11 Act of 1923, as amended. All appointments so made by
12 the Secretary shall be made only on the basis of merit and
13 efficiency.

14 (b) The Secretary may delegate any of the powers and
15 duties conferred on him by this Act to any agency or
16 bureau of the Department of Agriculture.

17 (c) The Secretary, with the consent of any board,
18 commission, independent establishment, corporation, or exec-
19 utive department of the Government, including any field serv-
20 ice thereof, may avail himself of the use of information,
21 services, facilities, officers and employees thereof, in carry-
22 ing out the provisions of this Act.

23 (d) The Secretary may allot to bureaus and offices of
24 the Department of Agriculture, or may transfer to such other
25 agencies of the State and Federal Governments as may be

1 requested by him to assist in carrying out this Act, any funds
2 made available to him under this Act.

3 SEC. 3. There are authorized to be appropriated such
4 amounts as may be necessary to carry out the provisions of
5 this Act. Any amounts so appropriated, and any funds
6 received by the Secretary under this Act, shall remain per-
7 manently available for the purposes of this Act without re-
8 gard to the provisions of any other laws relating to the
9 availability and disposition of appropriated funds and the
10 disposition of funds collected by officers or agencies of the
11 United States.

A BILL

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

By Mr. DOWNEY

FEBRUARY 17 (legislative day, FEBRUARY 13), 1942
Read twice and referred to the Committee on Military Affairs

Feb. 18

certain suggested amendments to the bill which increase borrower control by increasing farmer representation in the district boards of directors and by limiting the authority of the Governor to approve the salaries of officers of district units; and be it further

Resolved, That this association oppose those provisions of the bill which decrease borrower investment in the land-bank system and those which provide for the scale-down of debt.

PENALTY ON WHEAT

Whereas livestock producers of the range States are opposed to the Agricultural Adjustment Administration program as it applies to the penalty on wheat grown on our own land and fed to our own livestock; and

Whereas it is not possible to grow corn successfully in most of the area of the Western States; and

Whereas it has been demonstrated by our various State experiment stations that wheat is one of our most valuable feeds to finish our livestock for the market: Therefore be it

Resolved, That we ask Congress to modify the law so as to allow us to grow wheat free of penalty in sufficient quantity to finish our livestock so that we may be able to comply with the request of our honorable Secretary of Agriculture for additional tonnage of meats for our Nation and those who are fighting by our side during this extreme emergency.

PRIORITIES IN RANCH MACHINERY

Whereas in the emergency orders which have been issued dealing with priorities for various equipment and supplies which are most essential to successful livestock ranching and consequently to the production of meat, it appears that there has been insufficient consideration for the needs of ranchers in this regard; and

Whereas it is most essential that livestock ranching should not be unduly hampered: Therefore be it

Resolved, That we urge the Office of Production Management to give greater consideration to the needs of ranchers with respect to farm and ranch trucks, to tires for same, to all machinery necessary for the raising and harvesting of farm and ranch crops, and to various types of equipment such as windmill and pump repairs, all of which are vitally essential to successful ranching operations and meat production.

[Exclusive of the regular resolutions adopted, the following telegram was sent to the President at the express direction of the convention at the opening session.]

Recognizing that this Nation is in great danger as a result of our involvement in war, the American National Live Stock Association in convention assembled at Salt Lake City today, representing principally the range cattlemen and women of the western States, pledges to you that we will gladly make the effort needed to assure a beef supply for the Nation and willingly make the necessary sacrifices to assure victory in order that we may preserve liberty and freedom in and for our Nation.

REPORTS OF COMMITTEES

The following reports of committees were submitted:

By Mr. DOWNEY, from the Committee on Military Affairs:

S. 2282. A bill to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses; without amendment (Rept. No. 1099).

By Mr. WALSH, from the Committee on Naval Affairs:

S. Res. 225. Resolution for an investigation to determine the cause of the fire on the U. S. S. *LaFayette* (the former French liner *Normandie*); without amendment, and, under the rule, referred to the Committee to Audit and Control the Contingent Expenses of the Senate.

ENROLLED BILL PRESENTED

Mrs. CARAWAY, from the Committee on Enrolled Bills, reported that on February 17, 1942, that committee presented to the President of the United States the enrolled bill (S. 1526) to provide decentralization of the issuance of orders authorizing the payment of travel expenses in connection with the transfer of civilian employees from one station to another.

BILL INTRODUCED

Mr. WALSH introduced a bill (S. 2285) to provide for the retirement, with advanced rank, of certain officers in the Navy, which was read twice by its title and referred to the Committee on Naval Affairs.

HOUSE BILL REFERRED

The bill (H. R. 6611) making additional appropriations for the national defense for the fiscal year ending June 30, 1942, and for other purposes, was read twice by its title and referred to the Committee on Appropriations.

PAY AND ALLOWANCES FOR ARMY, NAVY, MARINE CORPS, AND COAST GUARD—AMENDMENTS

Mr. DANAHER and Mr. CLARK of Missouri each submitted an amendment intended to be proposed by them to the bill (H. R. 6446) providing for continuing pay and allowances of personnel of the Army, Navy, Marine Corps, and Coast Guard during periods of absence from posts of duty, which were ordered to lie on the table and to be printed.

AMERICA IS IN DANGER—ADDRESS BY SENATOR LUCAS

[Mr. BARKLEY asked and obtained leave to have printed in the Appendix a radio address on the subject America Is in Danger, delivered by Senator Lucas at Washington, D. C., Friday evening, February 13, 1942, which appears in the Appendix.]

LINCOLN DAY ADDRESS BY SENATOR WILLIS

[Mr. McNARY asked and obtained leave to have printed in the Record a Lincoln Day address delivered by Senator WILLIS before the State convention of Young Republicans at Greensboro, N. C., February 14, 1942, which appears in the Appendix.]

ADDRESS BY GOVERNOR McGRATH, OF RHODE ISLAND

[Mr. GREEN asked and obtained leave to have printed in the Record an address delivered by Gov. J. Howard McGrath, of Rhode Island, at the annual dinner of the Providence Chamber of Commerce, February 11, 1942, which appears in the Appendix.]

ADDRESS BY FORMER SENATOR DILL ON CONGRESSIONAL RETIREMENT

[Mr. MEAD asked and obtained leave to have printed in the Record a radio address delivered by former Senator Dill, on February 5, 1942, on the subject of congressional retirement, which appears in the Appendix.]

EXCERPTS FROM ADDRESSES ON OCCASION OF RECEPTION AND DINNER TO MOST REVEREND THOMAS E. MALLOY, BISHOP OF BROOKLYN

[Mr. MEAD asked and obtained leave to have printed in the Appendix excerpts from speeches delivered at a good-will dinner and reception held in honor of the Most Reverend Thomas E. Malloy, D. D., Bishop of Brooklyn, on November 27, 1941, which appear in the Appendix.]

THE NEED FOR REFORM—ARTICLE BY HANSON W. BALDWIN

[Mr. LA FOLLETTE asked and obtained leave to have printed in the Record an article by Hanson W. Baldwin, published in the New York Times of today, entitled "The Need for Reform," which appears in the Appendix.]

A ZIONIST ARMY?—EDITORIAL FROM THE NEW YORK TIMES

[Mr. RADCLIFFE asked and obtained leave to have printed in the Appendix an editorial from the New York Times of January 22, 1942, entitled "A Zionist Army?" which appears in the Appendix.]

PAY AND ALLOWANCES FOR ARMY, NAVY, MARINE CORPS, AND COAST GUARD

The Senate resumed the consideration of the bill (H. R. 6446) to provide for continuing payment of pay and allowances of personnel of the Army, Navy, Marine Corps, and Coast Guard, including the retired and Reserve components thereof, and civilian employees of the War and Navy Departments during periods of absence from post of duty, and for other purposes.

The VICE PRESIDENT. The question is on agreeing to the amendment in the nature of a substitute reported by the Committee on Naval Affairs.

Mr. BARKLEY. I suggest the absence of a quorum.

The VICE PRESIDENT. The clerk will call the roll.

The Chief Clerk called the roll, and the following Senators answered to their names:

Aiken	Gillette	Norris
Austin	Glass	Nye
Bailey	Green	O'Daniel
Ball	Guffey	O'Mahoney
Bankhead	Gurney	Overton
Barkley	Hayden	Pepper
Bilbo	Herring	Radcliffe
Bone	Hill	Reed
Brewster	Holman	Rosier
Brooks	Hughes	Schwartz
Brown	Johnson, Calif.	Smathers
Bulow	Johnson, Colo.	Spencer
Bunker	Kilgore	Stewart
Burton	La Follette	Taft
Butler	Langer	Thomas, Idaho
Byrd	Lee	Thomas, Okla.
Capper	Lodge	Tobey
Caraway	Lucas	Truman
Chavez	McCarran	Tunnell
Clark, Idaho	McFarland	Tydings
Clark, Mo.	McKellar	Vandenberg
Connally	McNary	Van Nuys
DanaHER	Maloney	Wallgren
Davis	Maybank	Walsh
Downey	Mead	Wheeler
Doxey	Millikin	White
George	Murdoch	Wiley
Gerry	Murray	Willis

Mr. HILL. I announce that the Senator from New Mexico [Mr. HATCH], the Senator from North Carolina [Mr. REYNOLDS], and the Senator from South Carolina [Mr. SMITH] are absent from the Senate because of illness.

The Senator from Utah [Mr. THOMAS] is absent because of illness in his family.

The Senator from Florida [Mr. ANDREWS], the Senator from Kentucky [Mr. CHANDLER], the Senator from Louisiana [Mr. ELLENDER], the Senator from Georgia [Mr. RUSSELL], and the Senator from New York [Mr. WAGNER] are necessarily absent.

Mr. AUSTIN. The Senator from New Hampshire [Mr. BRIDGES] is absent in a hospital because of a hip injury.

The Senator from New Jersey [Mr. BARBOUR] is unavoidably absent.

The Senator from Minnesota [Mr. SHIPSTEAD] is absent because of illness.

The VICE PRESIDENT. Eighty-four Senators have answered to their names. A quorum is present.

Mr. WALSH. Mr. President, the pending bill does not require extensive explanation. The purpose of the bill is set forth in its title, which is as follows:

A bill to provide for continuing payment of pay and allowances of personnel of the Army, Navy, Marine Corps, and Coast Guard, including the retired and Reserve components thereof, and civilian employees of the War and Navy Departments, during periods of absence from post of duty, and for other purposes.

The bill now presented in the nature of a substitute amendment to the original House bill, if enacted as amended by the committee, would make suitable provision for the support of dependents of personnel of the Army, Navy, Marine Corps, Coast Guard, including the retired and reserve components of those services, the Coast and Geodetic Survey and the Public Health Service, and civilian employees of the various Government departments, who have been reported as missing, missing in action, interned in a neutral country, or captured by an enemy, and who are not presumed to be dead or to have deserted.

In general, the purposes of this bill are to provide authorization for the continued payment or credit in the accounts of the pay and allowances of missing persons for 1 year following the date of commencement of absence from their posts of duty or until such persons have been officially declared dead; the continued payment for the same period of the allotments for the support of dependents and for the payment of insurance premiums, and for regular monthly payments to the dependents of missing persons, in the same manner in which allotments are paid, in those instances in which the missing persons had neglected to provide for their dependents through the medium of allotments, such payments to be deducted from the pay of the missing persons in the same manner in which allotments are paid.

Mr. CONNALLY. Mr. President, will the Senator yield?

Mr. WALSH. I yield.

Mr. CONNALLY. How is it to be determined who the dependents are?

Mr. WALSH. The head of the department concerned is given authority to determine that fact. In the case of the Army and Navy enlisted personnel, there is a record of their dependents in every case. If the records are missing or lost, as it is quite possible has happened or

will happen in the future, authority is given to the department concerned, without review by any other board, to determine who are the dependents.

Mr. CONNALLY. Suppose the soldier or sailor comes in later and says, "I did not authorize you to pay out this money to these so-called dependents." Take the case of a man and his wife who are separated and not living together at all: Is there likely to be any trouble along that line?

Mr. WALSH. That is a possibility, Mr. President; but in the meantime it is felt that the known dependents of persons who it is assumed have dependents, and persons who make claims which after investigation are found to be meritorious, should have the money.

Mr. CONNALLY. Why is it necessary to include retired officers?

Mr. WALSH. There are some retired officers who were in active service and are reported among the missing.

I suppose the Senate would like to know how many persons are already included within the scope of the bill. Of course, the number will increase as time goes on. That information already has been made public. Therefore, it is not divulging a military secret to state it now. The question asked of the naval officer who appeared before the committee was as follows:

The CHAIRMAN. Are you in a position to state—would it be contrary to the military policy or the defense policy of the Navy to state—approximately the number of persons who are now missing and would come under this bill?

Commander BIGGS. Next of kin have been notified in the cases of 58 officers that are supposed to be prisoners of war. We have no definite information, of course; in addition, there are 5 that are missing in action whose status we have been unable to determine.

The CHAIRMAN. Officers?

Commander BIGGS. Yes, sir; and as to enlisted men, we have 30 missing, who we have been unable to establish their status. We have 75 that are probably prisoners of war, and approximately 300 others that we suspect to be prisoners of war.

The CHAIRMAN. There is no way, of course, for these prisoners of war to communicate with the Navy Department?

Commander BIGGS. At the moment; no, sir.

The officer representing the Marine Corps was asked the same questions, and he stated that the Marine Corps have 44 officers in Manila and 716 enlisted men. As these men cannot be reached, they are embraced in this bill.

Colonel Curtis then said:

Yes, sir, or a total of 760, and reported missing are 1 officer and 65 enlisted men.

There was some other testimony as to the civilians who were in the employ of the Coast and Geodetic Survey, Public Health Service, Treasury Department, and the State Department.

There was also testimony to the effect that a number of marines in China probably have been captured or taken prisoner by the Japanese.

Mr. THOMAS of Idaho. Mr. President, will the Senator yield?

Mr. WALSH. I yield.

Mr. THOMAS of Idaho. Does section 2 of the bill take care of the civilian workmen who were employed on the captured Pacific islands? For instance, at Wake Island, a number of civilians were taken prisoners, and I understand they are now being held in Japan.

Mr. WALSH. Yes; those civilians who are employed by the various Government departments and serving outside the continental limits of the United States are covered in this bill. Other civilians are taken care of in Public Law No. 438, approved February 6, 1942, which makes provision for payment by the Government to dependents of civilians missing and employed by private contractors on public works outside the continental limits.

This bill and Public Law No. 438, therefore, take care of all classes of civilians missing or imprisoned by the enemy.

There is no provision in the bill for compensation to civilians who were injured. I believe the bill which the Senator from Florida [Mr. PEPPER] has introduced, and which is before the Committee on Education and Labor, deals with that factor, and that will be handled by the Federal Compensation Board, rather than by the military officials or heads of departments whose employees are missing.

Mr. THOMAS of Idaho. Many civilians on the islands were taken prisoner and are now in prison camps. We do not know whether they were injured or not. What I am wondering is, What immediate provision is made for the dependents of civilian workmen who were taken captive at Wake Island, Midway, and other Pacific outposts?

Mr. WALSH. Provision is made in Public Law 438 for them to be compensated, just as they would be if the work were being carried on and they were not taken prisoners of war.

Mr. THOMAS of Idaho. That is provided for in the bill?

Mr. WALSH. Yes; civilians directly employed by Government departments are in this bill; other civilians are in the public works bill, to which I have referred.

Mr. LA FOLLETTE. Mr. President, will the Senator from Massachusetts yield?

Mr. WALSH. I yield.

Mr. LA FOLLETTE. I am somewhat interested in this matter, as is the junior Senator from Idaho, as I have had communications from some of my Wisconsin constituents regarding relatives. They are inquiring about persons who, as I understand, were engaged in civilian activities on some of the islands which have been taken. I understand that the persons who are eligible for the benefits of the proposed act are defined on page 11 of the present print. It reads:

That for the purpose of this act—

(a) the term "person" means (1) commissioned officer, warrant officer, enlisted person (including persons selected under the Selective Training and Service Act, as amended), of the War and Navy Departments, member of the Army or Navy Nurse Corps (female), wherever serving; (2) commissioned officer of the Coast and Geodetic Survey or the Public Health Service; and (3) civilian officers and employees of executive depart-

GUAYULE RUBBER

FEBRUARY 18 (legislative day, FEBRUARY 13), 1942.—Ordered to be printed

Mr. DOWNEY, from the Committee on Military Affairs, submitted the following

REPORT

[To accompany S. 2282]

The Committee on Military Affairs, to whom was referred the bill (S. 2282) to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses, having considered the same, report favorably thereon, with the recommendation that it do pass.

STATEMENT

The favorable action of the committee upon S. 2282 took place on the date of this report, February 18, 1942, the bill having been introduced the previous day immediately following the receipt by the Senate of the message from the President of the United States vetoing S. 2152, because that measure restricted the promotion of guayule cultivation to the United States. In S. 2282 the language has been changed to read "the Western Hemisphere", in accordance with the President's recommendation, in paragraphs (2), (3), and (8) of section 1. In addition, the words "including citizens of countries in the Western Hemisphere" have been inserted following the word "employees" in the first sentence of section 2 (a), making it read:

The Secretary is authorized to appoint such employees including citizens of countries in the Western Hemisphere as may be necessary for carrying out the provisions of this Act.

An outline of the history of the measure follows:

S. 2152, by Mr. Downey, December 22, 1941: To provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

December 10, 1941: A hearing was held before the committee, and the following persons outside the committee were present and participated in the discussion: Hon. John Z. Anderson, Member of Congress; Dr. Elmer W. Brandes, of the Bureau of Plant Industry, Department of Agriculture;

- Hon. Jesse H. Jones, Secretary of Commerce and Federal Loan Administrator; and Mr. William H. Mason, of the General Tire & Rubber Co., Akron, Ohio. (Proceedings printed.)
- December 22, 1941: Approved by the committee.
- December 23, 1941: Reported to Senate. Report No. 924.
- December 23, 1941: Considered by the Senate and held over, following suggestion by Mr. Barkley that the bill on pages 2 and 3 be made to read not "United States" but "Western Hemisphere."
- December 30, 1941: The comptroller General of the United States recommended certain amendments.
- December 30, 1941: Copies of Comptroller General's recommendations furnished Senators Reynolds and Downey.
- January 3, 1941: Department of Agriculture recommended several amendments.
- January 5, 1942: Upon request of Mr. Downey, the bill was recommitted to this committee.
- January 6, 1942: Revised bill, including amendment of title, was approved by committee, after hearing Hon. Paul H. Appleby, Under Secretary of Agriculture, and Mr. Henry G. Wood, Legislative Counsel of the Senate. (Proceedings printed as Pt 2.)
- January 7, 1942: Reported to Senate. Report No. 935.
- January 12, 1942: Mr. Danaher submitted to the Senate the following proposed amendments: On page 5, line 24, strike out the words "now held by the Intercontinental Rubber Company or any of its subsidiaries, or by other companies or individuals,"; on page 7, line 24, and on page 8, lines 1 and 2, strike out the words "except that the total acreage of all plantings of rubber-bearing plants other than guayule shall not exceed fifteen thousand acres."
- January 12, 1942: Over upon the objection of Mr. McNary, the amendments offered by Mr. Danaher to be regarded as pending when the bill again comes up for consideration.
- January 15, 1942: Mr. Danaher's amendments were agreed to and the amended bill was passed by the Senate.
- January 19, 1942: To House Agriculture Committee.
- January 27, 1942: Reported to House. Report No. 1685.
- February 5, 1942: Passed by the House, with 17 amendments materially changing the bill. The changes include the substitution of the words "the United States" for "the Western Hemisphere" in paragraphs (2), (3), and (8) of section 1.
- February 9, 1942: Senate accepted House amendments.
- February 10, 1942: Presented to the President.
- February 17, 1942: Vetoed. Senate Document No. 182.
- February 17, 1942: Senator Downey introduced S. 2282, a bill to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses. (Restores the text of the bill to read "the Western Hemisphere" instead of "the United States.")
- February 18, 1942: S. 2282 approved by the committee and reported to the Senate. Report No. 1099.

Senate Report No. 935 on S. 2152 is appended hereto and made a part of this report:

[S. Rept. No. 935, 77th Cong., 1st sess.]

The Committee on Military Affairs, to whom was referred the bill (S. 2152) to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses, having considered the same, report favorably thereon with an amendment in the nature of a substitute and recommend that the bill as amended be passed.

STATEMENT

This bill was originally reported without amendment on December 23, 1941, but after it was placed on the calendar certain recommendations were made by the Secretary of Agriculture and by the Comptroller General which it was felt should be considered before the bill was acted on. Consequently a request for recommitment of the bill was agreed on January 1, 1942.

These recommendations have been incorporated in the substitute bill which is now being reported. Briefly, the recommendations of the Secretary of Agriculture would extend his authority so that he might acquire by condemnation, if necessary, processes or patents with respect to the growing and harvesting of guayule or other rubber-bearing plants and rights to land for the purpose of making plantings, would authorize the planting of 75,000 acres of guayule in areas in the Western Hemisphere rather than 45,000 acres in the United States as originally proposed by the bill, and would enable the Secretary to appoint and fix the compensation of employees, including citizens of countries in the Western Hemisphere, for carrying out the provisions of the act, without regard to the civil-service laws and the Classification Act of 1923, as amended. Authority is also granted to the Secretary of Agriculture to plant not to exceed 15,000 acres of rubber-bearing plants other than guayule.

The recommendations of the Comptroller General relate to the accounting features of the bill and include a revision of section 2 (b) of the original bill and the elimination of sections 2 (c) and 2 (d). These recommendations have been incorporated in the substitute bill.

The general purposes of the bill are set out in report No. 924 submitted on December 23, 1941, and for the convenience of the Senate a copy of that report is herewith attached.

[S. Rept. No. 924, 77th Cong., 1st sess.]

The Committee on Military Affairs, to whom was referred the bill (S. 2152) to authorize the Secretary of Agriculture to proceed with the production of guayule rubber, having carefully considered the same, after sufficient hearings, submit the following report thereon with recommendation that it do pass.

It is now possible that for an indefinite period all rubber imports from Asia to the United States will be prevented by Japanese military forces. At present we have in the United States something less than 700,000 tons of rubber, which is about the amount required for 1 year of normal use. If this tonnage is used only for military purposes and other vital purposes it will last somewhere around 30 months.

The committee are therefore of the opinion that energetic means should be taken to develop in the United States every possible source of rubber supply. These include factories to produce synthetic rubber, improve methods of reclaiming and utilizing old stocks, encouraging shipments from Latin America, and last, and probably most important, the planting and processing of the wild rubber shrub, the guayule plant.

The committee does not believe it necessary to discuss at length the respective possibilities and costs of these different means of adding to our rubber supply. This, because the committee believes that every governmental agency charged with any responsibility to help solve our rubber problem should vigorously develop every potential rubber source. Even the widest and most energetic efforts may leave us with a critical lack of rubber if the enemy can control Asiatic oceans more than 2 or 3 years.

The committee has been assured by several competent rubber experts that the product of the guayule plant is very similar to the present crude rubber now being used and may readily be substituted for it. Its cost of production will be about 22 cents a pound, which is about one-half of the anticipated cost of synthetic rubber and about equal to the present value of the Asiatic crude rubber.

Guayule is now being developed in the Salinas Valley in California as well as in Mexico. Apparently there is an almost unlimited acreage in California, Arizona, New Mexico, Texas, and probably other Southern States, upon which it can successfully be grown.

It is the opinion of the committee that if the Department of Agriculture proceeds energetically to promote the guayule industry, that within less than 3 years we can expect a large and important addition to our rubber supply; and that within 5 years the wild rubber shrub could be made to produce most of the rubber needed for our civilian economy as well as our defense.

A financial statement showing the cost of the development of the industry is now being prepared and will be available for Congress within a few days. But the committee can now assure the Senate that for the first 2 years the necessary expenditures would be only a few million dollars—a sum totally insignificant compared with the cost of any other rubber development.

The committee attach to this report the copy of a letter written by the Department of Agriculture to Hon. H. P. Fulmer, chairman of the Committee on Agriculture, House of Representatives, on December 16, 1941, in support of a House

bill, similar to the Senate bill now under consideration. In this bill the Secretary of Agriculture recommends the passage of the House bill and sets forth at length the facts upon which the recommendation is based.

Report from the Department of Agriculture follows:

DEPARTMENT OF AGRICULTURE,
Washington, December 16, 1941.

Hon. H. P. FULMER,

Committee on Agriculture, House of Representatives.

DEAR MR. FULMER: This is in reply to your request of June 12, 1941, for a report on H. R. 5030, to provide for the planting of 45,000 acres of guayule in order to make available a domestic source of crude rubber for emergency and defense uses.

The bill provides for establishing a corporation in the Department of Agriculture with necessary powers to plant or contract for planting 45,000 acres of the indigenous desert shrub, guayule, to grow the plants, and to provide for the extraction of the rubber. It provides for selling the rubber and using funds so obtained to maintain a planting of 45,000 acres of guayule.

In the opinion of the Department of Agriculture, the objects of H. R. 5030 are desirable in providing the essential means for a temporary source of natural rubber for emergency use by a method that avoids encouraging perpetuation of an uneconomic industry in the United States.

The Department of Agriculture has repeatedly pointed out that the wild plant, guayule, is a practicable and reasonably efficient but limited source of rubber; that it has been amply demonstrated by large-scale tests conducted by a commercial rubber company over a long period of years that improved guayule cultivated in the United States will produce rubber acceptable to rubber manufacturers and usable without alteration of manufacturing machinery; that the crop can be harvested and processed 4 or 5 years after field plantings are made at costs not unreasonably high, but substantially higher than the costs of producing rubber from the Para rubber tree in the American Tropics; that the shorter cycle of the cultivated guayule plant offers the possibility of obtaining rubber earlier than from planted Para rubber trees. Therefore, in the present emergency, which is certain to involve drastic curtailment and possibly complete cut-off of rubber supplies from the Orient, guayule is a demonstrated, practicable recourse for supplies of rubber.

Calculations made by the Department rubber experts indicate that the proposal in H. R. 5030 fits very well into a comprehensive plan for the progressive utilization of natural rubber from several available sources, including rubber from wild Hevea and Castilla rubber trees in the American Tropics and from cultivated guayule to revivify reclaimed rubber in the United States and provide for the strategic and other reasonable needs for rubber until low-cost plantation Hevea rubber is available in quantity from the American Tropics.

The problem of replacing our present sources of rubber supply will not easily be met by concentrating on a single source such as synthetic rubber. The cost would be enormous and the product is not demonstrated as satisfactory for exclusive use in meeting rubber needs. Moreover, it has been estimated that considerable time would be required to construct the physical facilities necessary for producing a volume of synthetic rubber equivalent to present consumption of crude rubber.

According to those who can speak authoritatively for the rubber industry, that would involve expensive change-over of rubber manufacturing machinery, and reallocation of machinery when cheap natural rubber again became available. It is known that Germany and Russia currently are making frantic efforts to secure natural rubber, which indicates that synthetic rubber cannot be used satisfactorily for all purposes.

We believe that a comprehensive, flexible plan providing for use of available sources of both crude and synthetic rubber is preferable. As a timely first step, some provisions in H. R. 5030 are admirably suited to such a plan.

H. R. 5030 does not contemplate the production of rubber in quantity sufficient to meet our needs but does provide for a nucleus planting, expandable in accordance with current forecasts of later needs. The expansion or curtailment would appear to be subject to control through governmental action based on the current forecasts and need not result in speculative planting or development of private vested interests. The activity could be discontinued when it became apparent that the reserve supply being created was no longer required to insure adequate supplies of rubber.

However, this Department believes the wisdom of employing the corporate device in the performance of the task here involved is questionable; that greater efficiency in costs and operations would result from legislation which would grant the necessary powers to the Secretary to permit him to carry out these added functions within the existing framework of the Department and to devote present personnel and facilities to the objectives of the program to the greatest extent that this may be found feasible.

There is therefore attached a draft of a proposed substitute bill containing the revisions which we suggest. These changes are designed, as the foregoing points out in part, to afford greater administrative flexibility, to reduce the possibility of administrative complications, and to facilitate efficient utilization of existing agencies of this Department, which are already equipped to contribute toward the successful prosecution of the phase of the defense program herein contemplated. The importance of the latter consideration is emphasized by the fact that expert opinion and a comparison of current prices of natural crude rubber from the East with those of the guayule product lead to the conclusion that substantial losses may result when sources of supply in tropical regions are available. The assumption of this risk must be justified by the present war emergency.

We wish to point out that the nature of the crop season for guayule rubber makes prompt action necessary if nurseries are to be planted next March. Land must be acquired and prepared, and overhead irrigation facilities and special planting equipment constructed. Failure to complete arrangements for the operation of the nurseries by next March or April may mean the loss of an entire season.

The Bureau of the Budget advises that there would be no objection to the presentation of this report for the consideration of the committee.

Sincerely yours,

PAUL H. APPELEY, *Under Secretary.*

A portion of House Report No. 1685 on S. 2152 is also appended hereto and made a part of this report:

[H. Rept. No. 1685, 77th Cong., 1st sess.]

The Committee on Agriculture, to whom was referred the bill (S. 2152) to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses, having considered the same, report thereon with a recommendation that it do pass, with the following amendments:

Page 1, line 6, strike out the wording: "or by condemnation,".

Page 1, line 10, strike out the semicolon, insert a comma and the following wording: "including but not limited to any such rights owned or controlled by the Intercontinental Rubber Company, or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents, and processes of the Intercontinental Rubber Company, or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Company or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000."

Page 2, line 3, strike out the words "Western Hemisphere" and insert in lieu thereof the words: "United States".

Page 2, line 9, following the word "equipment" insert a comma.

Page 2, line 10, strike out the word "and", also strike out the semicolon following the word "facilities", insert a comma and the following wording: "and land for nurseries".

Page 2, line 11, strike out the word "purchase" and the following comma.

Page 2, line 12, strike out the wording "or by condemnation," and insert in lieu thereof the following wording: "for not exceeding ten years,".

Page 2, lines 14 and 15, strike out the wording "Western Hemisphere" and insert in lieu thereof the wording: "United States".

Page 2, line 22, strike out the semicolon, insert a comma and the following wording: "and to purchase land as sites for processing plants".

Page 3, line 15, strike out the wording "Western Hemisphere" and insert in lieu thereof the following wording: "United States".

Page 3, lines 20 and 21, strike out the following wording: "including citizens of countries in the Western Hemisphere,".

Page 4, strike out all of lines 3 to 8, inclusive, also change the lettering of subparagraphs (c), (d), and (e) to (b), (c), and (d), respectively.

Page 5, line 6, following the period, insert a new sentence as follows: "Pending the making of the initial appropriation to carry out this Act, the Secretary is

authorized to use, for purchases or operations that he finds necessary under this Act before the making of such appropriation, the funds available to any agency or agencies of the Department of Agriculture, and any such funds so used shall be reimbursed from the appropriation made to carry out this Act."

Change the title so as to read: "A bill to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses."

GENERAL STATEMENT

S. 2152, as amended, authorizes the Secretary of Agriculture to plant up to 75,000 acres of guayule, to raise, harvest, and process the shrub, to sell the rubber, and utilize funds so obtained for the replanting and maintenance of a total of 75,000 acres. After deresination, which is a simple inexpensive process, guayule rubber is essentially the same as natural crude rubber from Para rubber trees.

The bill authorizes the Secretary of Agriculture to exercise the same authority with respect to rubber-bearing plants other than guayule and to process rubber from natural stands of rubber-bearing plants. The outbreak of war in the Pacific and the attendant military and naval action make it possible that for an indefinite period all crude rubber imports from the east to the United States will be prevented by Japanese military forces. It is possible that the United States must depend upon crude rubber now in the country, reclaimed rubber, synthetic rubbers, and new supplies of crude rubber that can be developed in the Western Hemisphere. Reserve stocks of rubber now on hand can be supplemented immediately by enlarged production of reclaimed rubber and expansion of our facilities for production of synthetics. Energetic action should result in materially increased imports of rubber from Latin-American countries. Even with this development it is foreseen that there will be an increased need for new supplies of crude rubber in the United States within a few years. By utilizing present stocks of crude rubber and new stocks mainly from wild trees in Latin America, the reclaim and synthetics can be made to meet our imperative needs of the near future, but fresh stocks of crude rubber will be needed to revivify the reclaim and to mix with synthetics to meet critical needs in the several years interim before the Para rubber trees now being planted in the Western Hemisphere can be tapped. Guayule rubber is not presented as an immediate answer to our needs, and the present authorization is limited to the planting of the present available seed of improved varieties which is sufficient to plant not more than 75,000 acres. If later authorization is given for expansion of plantings beyond the limits of the present bill, appreciable supplies of rubber can be produced from guayule within 3 years and a large amount could be obtained within 5 to 6 years. It is at that period, 3 to 6 years from now, that the greatest need for new supplies of crude rubber will be most pressing in order to supplement and take greatest advantage of available reclaim and synthetics.

The committee has heard the testimony of competent rubber experts who have certified that the rubber produced from the guayule plant is comparable with the present crude rubber and may be readily substituted for it. The cultivation of guayule in the United States has been demonstrated as feasible and there are lands in California, Arizona, New Mexico, and Texas where it can be successfully grown. Rubber has been extracted from wild plants in Mexico for many years and has been utilized successfully in manufacturing processes. The manufacturers of tires and other rubber articles are fully informed as to the quality of guayule rubber which can be used without any change in present manufacturing equipment.

S. 2152, as amended, provides for the immediate acquisition of properties now held by private individuals engaged in growing and processing of guayule or other rubber-bearing plants and for planting and/or processing of rubber-bearing plants by the Government in suitable areas of the United States. Under provisions of this act the Secretary of Agriculture would be empowered to proceed to make nursery plantings of guayule immediately with any funds available in the Department of Agriculture even before actual appropriations for this work have been made. Under this authority the Secretary of Agriculture would be enabled to develop nurseries and make plantings during the coming spring season in order to avoid the loss of a year's time which might occur if authorization and appropriation were not made available in the near future. A detailed financial statement will be prepared in connection with requests for appropriations to prosecute the work authorized under the act. From its investigation the committee is able to assure the House of Representatives that expenditures under this authorization would be insignificant compared with the cost of any other rubber or rubber substitute development.

PROVISIONS OF THE BILL

The first section of the bill authorizes the Secretary of Agriculture, in general, to acquire the right to operate under patents and processes relating to the growing and harvesting of guayule and the extraction of rubber therefrom and to obtain the properties, processes, records, and data necessary to such operation. This section also authorizes the Secretary to plant, or contract for the planting of, a maximum of 75,000 acres of guayule in the United States for the purpose of maintaining a nucleus planting of guayule to serve as a domestic source of crude rubber and to provide planting material for further expansion to meet emergency needs of the United States.

In addition, the Secretary is authorized to purchase land for nurseries and as sites for factories for processing guayule. The committee believes that purchase of land should be limited to such purposes and that the land to be planted to the guayule shrub, other than the land purchased from the Intercontinental Rubber Co., should be leased for a period of not to exceed 10 years. There are included provisions for authorizing the Secretary to purchase necessary equipment, to construct and operate, or to contract for constructing and operating, processing plants for the extraction of rubber from guayule, and broad authority is given for experimentation with a view to improving the rubber yield of guayule and the manufacturing processes in which guayule is used.

Provisions have been inserted in the bill to authorize the Secretary to pay not in excess of \$2,000,000 to the Intercontinental Rubber Co. for its properties, real and personal, in California, and for the rights to operate under patents and processes concerning guayule planting, cultivation, and processing owned or controlled by the company. Testimony before the committee revealed, that unless the project authorized by the bill is to be delayed several years, immediate arrangements must be made to acquire approximately 23,000 pounds of seed of an improved strain of guayule now owned by the company and to secure the data, processes, patents, equipment, and other facilities of the company. This company has been experimenting for many years with domestic cultivation of guayule and, at the present time, is the sole source of the seed of improved varieties for domestic cultivation and has an experiment station of considerable size, including a nursery, growing shrub, and a processing factory in Salinas Valley, Calif. The bill authorizes the purchase of the property of the company in California, but not the real estate of the company in Arizona, which does not appear to be of material worth for guayule production.

The committee realize that it is difficult to appraise the value of the company's assets for the purpose of purchase, especially in the present emergency. Under normal conditions, it appears that the commercial value of these assets would probably be a great deal less than the amount authorized in the bill. However, in view of the present critical situation with respect to rubber supplies, the assets of the company, especially the seed and the processes developed by the company, take on increased values incapable of exact measurement. Accordingly, it seems to the committee, after considering the information presented to it, that as much as \$2,000,000 should be authorized for the purchase from Intercontinental Rubber Co.

In the first section of the bill, the committee have restricted the planting of guayule to the United States. The committee have also omitted provisions for condemnation of interests in land, since it would seem that specific authority for condemnation is unnecessary under general principles of law applicable to acquisition of interests in land by the United States.

The Secretary is also authorized to exercise, with respect to rubber-bearing plants other than guayule, the same powers as are granted with respect to guayule. Under this provision of the bill, experimentation work can be engaged in with respect to rubber-bearing plants, in addition to guayule, and rubber-bearing wild shrubs and plants can be transported to and processed in the factories used for extracting rubber from guayule.

Section 2 of the bill authorizes the Secretary to appoint employees without regard to the provisions of civil-service laws and the Classification Act of 1923. Through the provisions of this section, persons, including Mexicans, who have had long experience with the domestic cultivation of guayule by the International Rubber Co., can be employed.

The remaining provisions of this section authorize the Secretary to utilize other agencies of the Government and to allot funds to bureaus or agencies of the Department of Agriculture and to agencies of the State and Federal Governments called upon to assist in carrying out the bill.

Section 3 of the bill authorizes the appropriation of such funds as may be necessary and sets up a revolving fund for the purpose of carrying out the bill. Provision has also been made to authorize the Secretary to utilize funds of any other agency of the Department of Agriculture, subject to reimbursement, in the event that the Secretary determines that expenditures to carry out the act are necessary before appropriation to carry out the act is made.

The message of the President of the United States to the Senate, vetoing S. 2152, is also appended hereto and made a part of this report:

To the Senate of the United States of America:

I return herewith, without approval, Senate bill 2152, entitled "An act to provide for the planting of guayule and other rubber-bearing plants in order to make available a source of crude rubber for emergency and defense uses."

In the establishment of sources of crude rubber for emergency and defense uses it is vital that all potential rubber-producing areas in the Western Hemisphere be developed, regardless of whether within or without the United States. The present bill excludes important sources and we cannot afford to neglect any opportunity to obtain maximum supplies of crude rubber.

On January 28, 1942, at the Third Meeting of the Ministers of Foreign Affairs of the American Republics in Rio de Janeiro, Brazil, there was passed unanimously by the 21 American republics a resolution that continental solidarity be translated into positive and efficient action in the obtaining of strategic materials. Rubber, of course, is one of the most important of these materials, and this bill provides that guayule shall be a source of crude rubber for emergency and defense uses.

The bill as it was amended by the House to limit the promotion of guayule cultivation to the United States would contradict the spirit of the resolution and seriously handicap our joint war effort.

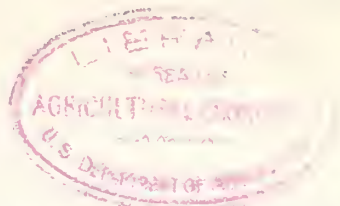
Areas in this hemisphere outside of the United States, where the guayule plant is indigenous, are adapted to its cultivation, and it is desirable that the provisions of this bill be extended to include those countries.

In order to avoid delay, I recommend that the Congress give immediate reconsideration to the proposal and take prompt action on a bill similar to the bill in question but applicable to all the American republics.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, February 17, 1942.





Calendar No. 1136

77TH CONGRESS
2^D SESSION

S. 2282

[Report No. 1099]

IN THE SENATE OF THE UNITED STATES

FEBRUARY 17 (legislative day, FEBRUARY 13), 1942

Mr. DOWNEY introduced the following bill; which was read twice and referred to the Committee on Military Affairs

FEBRUARY 18 (legislative day, FEBRUARY 13), 1942

Reported by Mr. DOWNEY, without amendment

A BILL

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, the right to operate under processes or patents relating
7 to the growing and harvesting of guayule or the extraction
8 of rubber therefrom, and such properties, processes, records,
9 and data as are necessary to such operation, including but
10 not limited to any such rights owned or controlled by the

1 Intercontinental Rubber Company, or any of its subsidiaries,
2 and all equipment, materials, structures, factories, real prop-
3 erty, seed, seedlings, growing shrub, and other facilities,
4 patents and processes of the Intercontinental Rubber Com-
5 pany, or any of its subsidiaries, located in California, and for
6 such rights, properties, and facilities of the Intercontinental
7 Rubber Company or any of its subsidiaries, the Secretary is
8 authorized to pay not to exceed \$2,000,000;

9 (2) To plant, or contract for the planting of, not in
10 excess of seventy-five thousand acres of guayule in areas in
11 the Western Hemisphere where the best growth and yields
12 may be expected in order to maintain a nucleus planting
13 of guayule to serve as a domestic source of crude rubber as
14 well as of planting material for use in further expanding
15 guayule planting to meet emergency needs of the United
16 States for crude rubber; to establish and maintain nurseries to
17 provide seedlings for field plants; and to purchase necessary
18 equipment, facilities, and land for nurseries;

19 (3) To acquire by lease, or other agreement, for not
20 exceeding ten years, rights to land for the purpose of making
21 plantings of guayule; to make surveys, directly or through
22 appropriate Government agencies, of areas in the Western
23 Hemisphere where guayule might be grown; and to establish
24 and maintain records indicating areas to which guayule cul-
25 tivation could be extended for emergency production;

1 (4) To construct or operate, or to contract for the opera-
2 tion of, factories for the extraction of rubber from guayule,
3 and from Chrysothamnus, commonly known as rabbit brush;
4 and to purchase, operate, and maintain equipment for the
5 harvesting, storing, transporting, and complete processing of
6 guayule, and Chrysothamnus, commonly known as rabbit
7 brush, and to purchase land as sites for processing plants;

8 (5) To conduct studies, in which he may cooperate with
9 any other public or private agency, designed to increase the
10 yield of guayule by breeding or by selection, and to improve
11 planting methods; to make surveys of areas suitable for cul-
12 tivating guayule; to make experimental plantings; and to
13 conduct agronomic tests;

14 (6) To conduct tests, in which he may cooperate with
15 any other public or private agency, to determine the quali-
16 ties of rubber obtained from guayule and to determine the
17 most favorable methods of compounding and using guayule
18 in rubber manufacturing processes;

19 (7) To improve methods of processing guayule shrubs
20 and rubber and to obtain and hold patents on such new
21 processes;

22 (8) To sell guayule or rubber processed from guayule
23 and to use funds so obtained in replanting and maintaining
24 an area of seventy-five thousand acres of guayule inside
25 the Western Hemisphere; and

1 (9) To exercise with respect to rubber-bearing plants
2 other than guayule the same powers as are granted in the
3 foregoing provisions of this section with respect to guayule.

4 SEC. 2. (a) The Secretary is authorized to appoint
5 such employees including citizens of countries in the West-
6 ern Hemisphere as may be necessary for carrying out the
7 provisions of this Act. Such appointments may be made
8 without regard to the provisions of the civil-service laws,
9 and the compensation of the persons so appointed may be
10 fixed without regard to the provisions of the Classification
11 Act of 1923, as amended. All appointments so made by
12 the Secretary shall be made only on the basis of merit and
13 efficiency.

14 (b) The Secretary may delegate any of the powers and
15 duties conferred on him by this Act to any agency or
16 bureau of the Department of Agriculture.

17 (c) The Secretary, with the consent of any board,
18 commission, independent establishment, corporation, or exec-
19 utive department of the Government, including any field serv-
20 ice thereof, may avail himself of the use of information,
21 services, facilities, officers and employees thereof, in carry-
22 ing out the provisions of this Act.

23 (d) The Secretary may allot to bureaus and offices of
24 the Department of Agriculture, or may transfer to such other
25 agencies of the State and Federal Governments as may be

1 requested by him to assist in carrying out this Act, any funds
2 made available to him under this Act.

3 SEC. 3. There are authorized to be appropriated such
4 amounts as may be necessary to carry out the provisions of
5 this Act. Any amounts so appropriated, and any funds
6 received by the Secretary under this Act, shall remain per-
7 manently available for the purposes of this Act without re-
8 gard to the provisions of any other laws relating to the
9 availability and disposition of appropriated funds and the
10 disposition of funds collected by officers or agencies of the
11 United States.



77TH CONGRESS
2d Session

S. 2282

[Report No. 1099]

A BILL

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

By Mr. DOWNEY

FEBRUARY 17 (legislative day, FEBRUARY 13), 1942

Read twice and referred to the Committee on Military
Affairs

FEBRUARY 18 (legislative day, FEBRUARY 13), 1942

Reported without amendment

The title was amended so as to read: "An act to provide for continuing payment of pay and allowances of personnel of the Army, Navy, Marine Corps, and Coast Guard, including the retired and Reserve components thereof; the Coast and Geodetic Survey and the Public Health Service, and civilian employees of the executive departments, independent establishments, and agencies, during periods of absence from post of duty, and for other purposes."

MAJ. GEN. WILLIAM L. MITCHELL

Mr. WILEY. Mr. President, 17 years ago today, on February 19, 1925, a man stood before a congressional committee here in Washington.

At that time this man described the Pacific defenses as "pitiable." At that time he testified before a congressional committee that the Japs could take the Philippines and Hawaii.

In the light of what was subsequently revealed by the Roberts Report, it is interesting to recall that 17 years ago today the same man testified that in October and November of 1924, when he visited Hawaii, the commanding general would not speak to the commanding admiral. According to the testimony which this man gave before the congressional committee at that time, "There is no cooperation at all out there."

That testimony was given on February 19, 1925. Exactly 11 years later, on February 19, 1936, just 6 years ago, the man who gave that testimony died, probably of a broken heart. Mr. President, that man was the late Brig. Gen. William L. Mitchell.

Across the span of almost two decades his prophetic words come to haunt us today, to confront us with the challenge to organize our war effort realistically, with a proper recognition of the importance of our air force.

Mr. President, on February 1 the distinguished Washington correspondent, Mr. Bascom Timmons, long a personal friend of the late "Billy" Mitchell, wrote the story of Mitchell's warning about the Pacific. It is well for us to recall Mitchell's warning about the Pacific on the anniversary of his trial; and I ask that Mr. Timmons' article be inserted in full at this point in my remarks.

The VICE PRESIDENT. Without objection, it is so ordered.

The article is as follows:

MITCHELL'S WARNING ABOUT PACIFIC RECALLED ON ANNIVERSARY OF TRIAL—COURT-MARTIALED GENERAL SAID ARMY AND NAVY HEADS IN HAWAII WOULDN'T SPEAK TO EACH OTHER AND THAT DISASTER WAS CERTAIN

(By Bascom N. Timmons)

WASHINGTON, January 31.—Sixteen years ago today I sat in a Washington hotel room with a soldier of the United States. He had just been found guilty by a court martial. The trial had been under the ninety-sixth article of war, the catch-all, or so-called devil's clause of the Articles of War. On the following day he was to leave the Army. The soldier's name was William Mitchell.

He had been preparing a statement for the press and the country. I had looked it over, made a few suggestions. In my notes sometime later I found something he had written, then discarded and wrote again. It was in his own handwriting and formed the seventh paragraph of the statement he had written for release on February 1, 1926. It read;

"I look back on this record with the greatest pride and with satisfaction that I have done everything possible for my country. After all these years of service, not one dark spot can be found on my record and not one act which does not redound to the credit of the United States."

In my opinion, he was at that time the greatest authority on aviation in the world. Not only that, I believe then and believe now, that he knew more about all sorts of transportation than any man of his day.

He was the grandson of old Alexander Mitchell, who came to the shores of Lake Michigan a scant 20 years after Solomon Juneau, Milwaukee's first white citizen, arrived, and at a time when the Fort Dearborn massacre on the site of the present city of Chicago was fresh in men's minds. Alexander Mitchell had welded railroad short lines into the Chicago, Milwaukee and St. Paul, the first great railroad west of the Mississippi.

WAS VETERAN SOLDIER

Transportation and communication had always intrigued William Mitchell. He had been a foot soldier carrying a Krag rifle in Cuba and the Philippines. He had been a cavalryman. With a dog team he had helped Greeley complete the telegraph line in Alaska. The first automobile used in the Army had been in his outfit. He had pioneered the radio. The greatest concentration of allied air power ever participating in actual combat was entrusted to him.

General Mitchell in this statement, prepared on the last full day he served in the United States Army, charged that an Army and Navy oligarchy, entrenched behind a bureaucratic system, had attempted to bulldoze and coerce patriotic Army and Navy officers who disagreed with the views of this oligarchy. He had not been bulldozed, and he was going out. He concluded the statement:

"From now on I feel I can better serve my country and the flag I love by bringing a realization of the true conditions of our national defense straight to the people than by remaining muzzled in the Army. I shall always be on hand in case of war or emergency, whenever I am needed."

"Good-bye, General," I said, as I left him.

"Start calling me Mr. Mitchell," he replied with a smile, "but I am not through yet."

Mitchell's court martial came as no surprise to him, to the Army and Navy generally, or to anyone else of reasonable information in Washington. His number certainly had been up for almost a year—from the date of his testimony before the Lampert committee investigating aircraft, in February of 1925. He had vigorously attacked Secretary of War Weeks and Secretary of the Navy Wilbur and had described the Pacific defenses as "pitiable."

WARNED OF HAWAII WEAKNESS

It happens that I had also accompanied General Mitchell on that day. I sat at the table beside him as he shocked the committee by testifying that Japan could capture the Philippines and Hawaii in 2 weeks.

"An air force could reduce our Pacific islands easily, and we couldn't defend them with our present armament," said Mitchell.

"You say the Japs could take the Philippines and Hawaii and we could not stop it?" asked Representative Reid, Illinois.

"Of course," replied Mitchell. "Why, conditions are so bad out there that when I was in Hawaii last October and November I found the commanding general wouldn't speak to the commanding admiral, and they wouldn't even go to the same social functions together. There is no cooperation at all out there. The general and admiral even have separate and secret plans for taking Honolulu in case of war."

"How would they take Honolulu?" asked Congressman Perkins, of New Jersey.

OFFICERS INFURIATED

"Use force," replied Mitchell.

"You mean the general and the admiral at Pearl Harbor would fight each other?"

"The admiral at Pearl Harbor has plans to take Honolulu, and the general has plans to take it away from him if he does."

"You mean our Army would fight our Navy?"

"Yes," replied Mitchell.

That testimony infuriated both Army and Navy officers.

Mitchell also told the committee that the Army had only 19 effective pursuit planes, a statement which Secretary of War Weeks hotly denied, claiming it had 1,200.

Said Mitchell:

"We have only 19 pursuit planes and 15 pilots, not enough to man the planes we have. Of course, we have some obsolete planes, which, by the way, are good enough to sink any battleship afloat, but they would be no good in an air fight."

He told the committee the Army and Navy are old men, supporting each other, defending their ancient ways of doing things against the onrushing tide of public opinion and of modern inventions. They dress the air force in spurs, swords, and high collars. "We have to undress every time we get into an airplane," he said.

Gen. Hugh A. Drum, Assistant Chief of Staff, was present to testify in opposition to Mitchell.

"What does General Drum here know of air power?" asked Reid.

"Nothing whatever," replied Mitchell, looking directly at the reddening Drum.

ADMIRAL BACKS MITCHELL

A little later Admiral William S. Sims came to the stand to corroborate Mitchell's testimony. Sims was unpopular with the powers that be in the Navy and he didn't help in the feeling against Mitchell among the Army and Navy higher-ups.

Sims testified that 12 airplane carriers with 50 planes each could destroy the United States Fleet.

"But I am wasting my time telling you that," Sims said. "The conservatism of the military mind won't allow anything to be done about it. They never give in. Back in the Middle Ages the same sort of men hung onto their battle-axes and pikes and said that bows and arrows were not a serious menace until disaster overtook them. The airplane carrier is the capital ship of the future, because her bombing planes can reach and sink a battleship while the carrier continues to cruise swiftly out of range of the armored ship's guns."

In March Mitchell was reduced in rank from brigadier general to colonel and relieved of his high place in the War Department. From his post at San Antonio, Mitchell continued his battle.

On September 5, 1925, Mitchell burned all his bridges behind him, when, at San Antonio following the loss of the dirigible Shenandoah, he attributed frightful aeronautical accidents and loss of life directly to incompetence in the War and Navy Departments and characterized the administration of those departments as incompetent, criminally negligent, and almost treasonable.

"DISGUSTING PERFORMANCES"

He also charged the Navy with misleading the Nation as to facts shown by recent maneuvers near Hawaii. The plain facts were, he said, that "as far as Honolulu is concerned, it is not a position of decisive influence in the control of the Pacific. Its value consists in being an excellent submarine base to act against hostile surface craft and submarines. The control of the Pacific is our own territory of Alaska and the peninsula of Kamchatka opposite."

He concluded his statement:

"As a patriotic American citizen, I can no longer stand by and see those disgusting performances by the Navy and War Depart-

ments at the expense of the lives of our people and the delusion of the American public.

"The bodies of my former companions in the air smoulder under the soil of America, Asia, Europe, and Africa, many, yes, a great many, directly by official stupidity.

"This, then, is what I have to say on this subject, and I hope every American will hear it."

PLACED ON TRIAL

The ninety-sixth article of war was invoked against him and Mitchell was placed on trial on October 28. He was charged with having "conducted himself to the prejudice of good order and military discipline and in a way to bring discredit upon the military service by making, uttering, and publishing statements charging that those administering the War and Navy Departments were 'incompetent, criminally negligent, and almost treasonable.'"

Mitchell at that time was 45 years old, but easily could have passed for 35. After a long trial Mitchell was convicted. He was suspended from all rank and duty for 5 years and to total forfeiture of pay and allowance.

President Coolidge, upon review, approved the first part of the sentence, but held that Mitchell during his suspension should receive half his nonflying pay and certain living allowances "during the pleasure of the President."

CAUSED UPROAR IN CONGRESS

The conviction caused an uproar in Congress. Representative Thomas L. Blanton, of Texas, immediately introduced a resolution restoring Mitchell to his former rank of brigadier general, placing him in command of the air forces of the United States and suspending Maj. Gens. Dennis Nolan and Hugh A. Drum from the Army for 5 years and assessing against General King and Graves of the court which convicted him a fine of one-half of their salaries for 5 years. Representative LaGuardia, now mayor of New York, introduced a resolution cutting Mitchell's sentence to 30 days. Both resolutions were smothered.

Mitchell, feeling that the sentence was such as to hold him in bondage for the next 5 years, submitted his resignation.

WROTE ON AVIATION

Mitchell retired to his home in Virginia. For a time he contemplated opening an aviation school in association with Eddie Rickenbacker and others, but gave up the notion.

He wrote on aviation subjects from time to time, but ceased this when his health became impaired. He died 10 years after his court martial, February 19, 1936.

Two weeks ago the Senate passed a bill restoring the rank of brigadier general to Mitchell. It now pends in the House.

And this week Congress passed the \$12,000,000,000 appropriation bill providing for the procurement of 23,000 combat and 10,000 training planes, and General Marshall announced that the production of heavy bombers is reaching nearly 1,000 monthly.

AUTHORIZATION FOR COMMITTEE ON APPROPRIATIONS TO REPORT, ETC.

Mr. BARKLEY. Mr. President, I ask unanimous consent that during the contemplated adjournment the Senate Committee on Appropriations be authorized to make reports to the Senate on bills and resolutions, that the Secretary of the Senate be authorized to receive messages from the House of Representatives, and that the Presiding Officer of the Senate be authorized to sign bills and resolutions ready for his signature.

The VICE PRESIDENT. Is there objection? The Chair hears none, and it is so ordered.

AUTHORIZATION FOR COMMITTEE ON AGRICULTURE AND FORESTRY TO REPORT SENATE RESOLUTION 224

Mr. NORRIS. Mr. President, I ask unanimous consent that during the contemplated adjournment the Committee on Agriculture and Forestry be permitted to report Senate Resolution 224, and that the clerk shall then automatically refer the resolution to the Committee to Audit and Control the Contingent Expenses of the Senate.

The VICE PRESIDENT. Is there objection? The Chair hears none, and it is so ordered.

PRODUCTION OF RUBBER FROM GUAYULE

Mr. HILL. Mr. President, I understand it is the intention of the majority leader to move that the Senate take a recess until Monday. There is now on the calendar the so-called guayule bill, which has been considered twice by the Senate Committee on Military Affairs and reported to the Senate without opposition both times. It has also passed the Senate without any opposition. The measure was vetoed because of a House amendment which was not contained in the bill as passed by the Senate. It is most important that this bill be passed without delay. I ask unanimous consent for the present consideration of the bill as reported by the Senate Committee on Military Affairs.

The VICE PRESIDENT. Is there objection?

There being no objection, the bill (S. 2282) to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses was considered, ordered to be engrossed for a third reading, read the third time, and passed, as follows:

Be it enacted, etc., That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, the right to operate under processes or patents relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation, including but not limited to any such rights owned or controlled by the Intercontinental Rubber Co., or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents, and processes of the Intercontinental Rubber Co., or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Co. or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000;

(2) To plant, or contract for the planting of, not in excess of 75,000 acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment, facilities, and land for nurseries;

(3) To acquire by lease, or other agreement, for not exceeding 10 years, rights to land for the purpose of making plantings of guayule; to make surveys directly or through appropriate Government agencies of areas in the Western Hemisphere where guayule

might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule, and from *Chrysanthamnus*, commonly known as rabbit brush; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule, and *Chrysanthamnus*, commonly known as rabbit brush, and to purchase land as sites for processing plants;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber-manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of 75,000 acres of guayule inside the Western Hemisphere; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule.

SEC. 2. (a) The Secretary is authorized to appoint such employees, including citizens of countries in the Western Hemisphere, as may be necessary for carrying out the provisions of this act. Such appointments may be made without regard to the provisions of the civil-service laws, and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments so made by the Secretary shall be made only on the basis of merit and efficiency.

(b) The Secretary may delegate any of the powers and duties conferred on him by this act to any agency or bureau of the Department of Agriculture.

(c) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers, and employees thereof, in carrying out the provisions of this act.

(d) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this act, any funds made available to him under this act.

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this act. Any amounts so appropriated, and any funds received by the Secretary under this act, shall remain permanently available for the purposes of this act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

DISPOSITION OF AGRICULTURAL COMMODITIES BY COMMODITY CREDIT CORPORATION

Mr. BANKHEAD. Mr. President, I move that the Senate proceed to con-



Resolved, That the Board of Supervisors of Halifax County strongly condemns this act of Congress as against the public interest and as destructive to public morale; be it further

Resolved, That the board of supervisors commends Senator BYRD, Congressman BURCH, and those Members of the United States Senate from Virginia and of the House of Representatives from Virginia who favor the repeal of this measure; be it further

Resolved, That a copy of this resolution be sent to the county papers, the Times-Dispatch, the News-Leader, the Danville Register, the Lynchburg News, and the Associated Press, and to the members of the Virginia congressional delegation.

VOTERS OPPOSE PENSIONS FOR CONGRESS

(By Dr. George Gallup)

PRINCETON, N. J., February 17.—Public reaction to the issue of pensions for Congressmen is one of strong opposition, first returns in a Nation-wide survey by the American Institute of Public Opinion indicate.

Approximately three voters in every four, on the average, the poll finds, have heard or read about the principle involved in the legislation passed by the House of Representatives which would allow Members of Congress to put themselves under the civil-service retirement system if they have served 5 years.

Those who knew about the plan were asked in the poll:

"Do you approve or disapprove of giving a pension to Congressmen when they leave office?"

	Percent
Yes.....	10
No.....	84
Undecided.....	6

No. 37—3

EXECUTIVE SESSION

Mr. BARKLEY. I move that the Senate proceed to the consideration of executive business.

The motion was agreed to; and the Senate proceeded to the consideration of executive business.

EXECUTIVE MESSAGE REFERRED

The PRESIDING OFFICER (Mr. GILLETTE in the chair) laid before the Senate a message from the President of the United States nominating Callis H. Atkins to be an assistant sanitary engineer in the United States Public Health Service, to take effect from date of oath, which was referred to the Committee on Finance.

EXECUTIVE REPORTS OF COMMITTEES

The following favorable reports of nominations were submitted:

By Mr. McCARRAN, from the Committee on the Judiciary:

Oscar S. Cox, of Maine, to be Assistant Solicitor General of the United States, vice Charles Fahy, resigned.

By Mr. HILL, from the Committee on Commerce:

Jean H. Hawley, to be Assistant Director of the Coast and Geodetic Survey with rank of rear admiral, and several employees of the Coast and Geodetic Survey to be hydrographic and geodetic engineers with the rank of lieutenant in the Survey.

The PRESIDING OFFICER. If there be no further reports of committees, the clerk will state the nominations on the calendar.

POSTMASTER—GABRIEL J. CHOPP

The legislative clerk read the nomination of Gabriel J. Chopp to be postmaster at Ahmeek, Mich.

Mr. BROWN. Mr. President, I ask that the nomination be confirmed.

The PRESIDING OFFICER. Without objection, the nomination is confirmed. That completes the calendar.

RECESS

Mr. BARKLEY. As in legislative session, I move that the Senate take a recess until 12 o'clock noon tomorrow.

The motion was agreed to; and (at 1 o'clock and 44 minutes p. m.) the Senate took a recess until tomorrow, Tuesday, February 24, 1942, at 12 o'clock noon.

NOMINATION

Executive nomination received by the Senate February 23 (legislative day of February 13), 1942:

UNITED STATES PUBLIC HEALTH SERVICE

Callis H. Atkins to be an Assistant Sanitary Engineer in the United States Public Health Service, to take effect from date of oath.

CONFIRMATION

Executive nomination confirmed by the Senate February 23 (legislative day of February 13), 1942:

POSTMASTER

MICHIGAN

Gabriel J. Chopp, Ahmeek.

House of Representatives

MONDAY, FEBRUARY 23, 1942

The House met at 12 o'clock noon.

The Chaplain, Rev. James Shera Montgomery, D. D., offered the following prayer:

Give ear, O Lord, unto our prayer; in the beauty and glory of Thy infinite nature, incline unto us. In these hallowed moments it is given us to realize the patriotic devotion and character of our forefathers. From the unseen heights of Thy throne Thou didst guide their broken columns as they toiled in sacrificial suffering to bring order out of chaos, service out of selfishness, and man out of the throes of political tyranny. Oh, consider and hear us as we pray the prayer of the immortal Virginia patriot:

"Almighty God, we make our earnest prayer that Thou wilt keep the United States in Thy holy protection; that Thou wilt incline the hearts of the citizens to cultivate a spirit of subordination and obedience to government, and entertain a brotherly affection and love for one another and for their fellow citizens of the United States at large. And finally that Thou wilt most graciously be pleased to dispose us all to do justice, love mercy, and to demean ourselves with that charity, humility, and pacific temper of mind which were the characteristics of the Divine Author of our blessed religion without a humble imitation of whose example in these things we can never hope to be a happy nation. Grant our supplication, we beseech Thee, through Jesus Christ, our Lord. Amen."

THE JOURNAL

The Journal of the proceedings of Thursday, February 19, 1942, was read and approved.

MESSAGE FROM THE SENATE

A message from the Senate, by Mr. Frazier, its legislative clerk, announced that the Senate had passed with amendments, in which the concurrence of the House is requested, a bill of the House of the following title:

H. R. 6446. An act to provide for continuing payment of pay and allowances of personnel of the Army, Navy, Marine Corps, and Coast Guard, including the retired and Reserve components thereof, and civilian employees of the War and Navy Departments, during periods of absence from post of duty, and for other purposes.

The message also announced that the Senate had passed a bill of the following title, in which the concurrence of the House is requested:

S. 2282. An act to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

The message also announced that the Vice President had appointed Mr. BARKLEY and Mr. BREWSTER members of the joint select committee on the part of the

Senate, as provided in the act of August 5, 1939, entitled "An act to provide for the disposition of certain records of the United States Government," for the disposition of executive papers in the following agencies:

1. Government Printing Office.
2. The National Archives.

ENROLLED BILL SIGNED

Mr. KIRWAN, from the Committee on Enrolled Bills, reported that that committee had, on February 19, 1942, examined and found truly enrolled a bill of the House of the following title:

H. R. 6548. An act making appropriations to supply deficiencies in certain appropriations for the fiscal year ending June 30, 1942, and for prior fiscal years, to provide supplemental appropriations for the fiscal year ending June 30, 1942, and for other purposes.

The SPEAKER. The Chair desires to announce that, pursuant to the authority granted him on February 19, 1942, he did, on Friday, February 20, 1942, sign the enrolled bill of the House, H. R. 6548, the first deficiency appropriation bill.

EXTENSION OF REMARKS

Mr. MARTIN of Massachusetts. Mr. Speaker, I ask unanimous consent that I may extend my remarks in the Record by including therein an address delivered by the Honorable GEORGE A. DONDERO before the Michigan State College Alumni.

The SPEAKER. Is there objection to the request of the gentleman from Massachusetts?

There was no objection.

[The matter referred to appears in the Appendix.]

GEORGE WASHINGTON'S FAREWELL ADDRESS

The SPEAKER. The Chair thinks it proper first to recognize the gentleman from Nebraska [Mr. STEFAN] to read George Washington's Farewell Address. The gentleman from Nebraska.

WASHINGTON'S FAREWELL ADDRESS

Mr. STEFAN. Washington's Farewell Address:

To the people of the United States:

FRIENDS AND FELLOW CITIZENS: The period for a new election of a citizen to administer the executive government of the United States being not far distant, and the time actually arrived when your thoughts must be employed in designating the person who is to be clothed with that important trust, it appears to me proper, especially as it may conduce to a more distinct expression of the public voice, that I should now apprise you of the resolution I have formed, to decline being considered among the number of those, out of whom a choice is to be made.

I beg you, at the same time, to do me the justice to be assured, that this reso-

lution has not been taken, without a strict regard to all the considerations appertaining to the relation which binds a dutiful citizen to his country; and that, in withdrawing the tender of service which silence in my situation might imply, I am influenced by no diminution of zeal for your future interest; no deficiency of grateful respect for your past kindness; but am supported by a full conviction that the step is compatible with both.

The acceptance of, and continuance hitherto in the office to which your suffrages have twice called me, have been a uniform sacrifice of inclination to the opinion of duty, and to a deference for what appeared to be your desire. I constantly hoped that it would have been much earlier in my power, consistently with motives which I was not at liberty to disregard, to return to that retirement from which I had been reluctantly drawn. The strength of my inclination to do this, previous to the last election, had even led to the preparation of an address to declare it to you; but mature reflection on the then perplexed and critical posture of our affairs with foreign nations, and the unanimous advice of persons entitled to my confidence, impelled me to abandon the idea.

I rejoice that the state of your concerns, external as well as internal, no longer renders the pursuit of inclination incompatible with the sentiment of duty or propriety; and am persuaded, whatever partiality may be retained for my services, that in the present circumstances of our country, you will not disapprove my determination to retire.

The impressions with which I first undertook the arduous trust, were explained on the proper occasion. In the discharge of this trust, I will only say that I have, with good intentions, contributed towards the organization and administration of the government, the best exertions of which a very fallible judgment was capable. Not unconscious in the outset, of the inferiority of my qualifications, experience, in my own eyes, perhaps still more in the eyes of others, has strengthened the motives to diffidence of myself; and, every day, the increasing weight of years admonishes me more and more, that the shade of retirement is as necessary to me as it will be welcome. Satisfied that if any circumstances have given peculiar value to my services they were temporary, I have the consolation to believe that, while choice and prudence invite me to quit the political scene, patriotism does not forbid it.

In looking forward to the moment which is to terminate the career of my political life, my feelings do not permit me to suspend the deep acknowledgment of that debt of gratitude which I owe to

77TH CONGRESS
2D SESSION

S. 2282

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 23, 1942

Referred to the Committee on Agriculture

AN ACT

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 "Secretary") is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, the right to operate under processes or patents relating
7 to the growing and harvesting of guayule or the extraction
8 of rubber therefrom, and such properties, processes, records,
9 and data as are necessary to such operation, including but
10 not limited to any such rights owned or controlled by the

1 Intercontinental Rubber Company, or any of its subsidiaries,
2 and all equipment, materials, structures, factories, real prop-
3 erty, seed, seedlings, growing shrub, and other facilities,
4 patents and processes of the Intercontinental Rubber Com-
5 pany, or any of its subsidiaries, located in California, and for
6 such rights, properties, and facilities of the Intercontinental
7 Rubber Company or any of its subsidiaries, the Secretary is
8 authorized to pay not to exceed \$2,000,000;

9 (2) To plant, or contract for the planting of, not in
10 excess of seventy-five thousand acres of guayule in areas in
11 the Western Hemisphere where the best growth and yields
12 may be expected in order to maintain a nucleus planting
13 of guayule to serve as a domestic source of crude rubber as
14 well as of planting material for use in further expanding
15 guayule planting to meet emergency needs of the United
16 States for crude rubber; to establish and maintain nurseries to
17 provide seedlings for field plants; and to purchase necessary
18 equipment, facilities, and land for nurseries;

19 (3) To acquire by lease, or other agreement, for not
20 exceeding ten years, rights to land for the purpose of making
21 plantings of guayule; to make surveys, directly or through
22 appropriate Government agencies, of areas in the Western
23 Hemisphere where guayule might be grown; and to establish
24 and maintain records indicating areas to which guayule cul-
25 tivation could be extended for emergency production;

1 (4) To construct or operate, or to contract for the opera-
2 tion of, factories for the extraction of rubber from guayule,
3 and from *Chrysothamnus*, commonly known as rabbit brush;
4 and to purchase, operate, and maintain equipment for the
5 harvesting, storing, transporting, and complete processing of
6 guayule, and *Chrysothamnus*, commonly known as rabbit
7 brush, and to purchase land as sites for processing plants:

8 (5) To conduct studies, in which he may cooperate with
9 any other public or private agency, designed to increase the
10 yield of guayule by breeding or by selection, and to improve
11 planting methods; to make surveys of areas suitable for cul-
12 tivating guayule; to make experimental plantings; and to
13 conduct agronomic tests;

14 (6) To conduct tests, in which he may cooperate with
15 any other public or private agency, to determine the quali-
16 ties of rubber obtained from guayule and to determine the
17 most favorable methods of compounding and using guayule
18 in rubber manufacturing processes;

19 (7) To improve methods of processing guayule shrubs
20 and rubber and to obtain and hold patents on such new
21 processes;

22 (8) To sell guayule or rubber processed from guayule
23 and to use funds so obtained in replanting and maintaining
24 an area of seventy-five thousand acres of guayule inside
25 the Western Hemisphere; and

1 (9) To exercise with respect to rubber-bearing plants
2 other than guayule the same powers as are granted in the
3 foregoing provisions of this section with respect to guayule.

4 SEC. 2. (a) The Secretary is authorized to appoint
5 such employees, including citizens of countries in the West-
6 ern Hemisphere, as may be necessary for carrying out the
7 provisions of this Act. Such appointments may be made
8 without regard to the provisions of the civil-service laws,
9 and the compensation of the persons so appointed may be
10 fixed without regard to the provisions of the Classification
11 Act of 1923, as amended. All appointments so made by
12 the Secretary shall be made only on the basis of merit and
13 efficiency.

14 (b) The Secretary may delegate any of the powers and
15 duties conferred on him by this Act to any agency or
16 bureau of the Department of Agriculture.

17 (c) The Secretary, with the consent of any board,
18 commission, independent establishment, corporation, or exec-
19 utive department of the Government, including any field serv-
20 ice thereof, may avail himself of the use of information,
21 services, facilities, officers and employees thereof, in carry-
22 ing out the provisions of this Act.

23 (d) The Secretary may allot to bureaus and offices of
24 the Department of Agriculture, or may transfer to such other
25 agencies of the State and Federal Governments as may be

1 requested by him to assist in carrying out this Act, any funds
2 made available to him under this Act.

3 SEC. 3. There are authorized to be appropriated such
4 amounts as may be necessary to carry out the provisions of
5 this Act. Any amounts so appropriated, and any funds
6 received by the Secretary under this Act, shall remain per-
7 manently available for the purposes of this Act without re-
8 gard to the provisions of any other laws relating to the
9 availability and disposition of appropriated funds and the
10 disposition of funds collected by officers or agencies of the
11 United States.

Passed the Senate February 19, 1942.

Attest:

EDWIN A. HALSEY,

Secretary.

AN ACT

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

FEBRUARY 23, 1942

Referred to the Committee on Agriculture

Feb 27

GUAYULE RUBBER

FEBRUARY 27, 1942.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed

Mr. FULMER, from the Committee on Agriculture, submitted the following

REPORT

[To accompany S. 2282]

The Committee on Agriculture, to whom was referred the bill (S. 2282) to provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses, having considered the same, report thereon with a recommendation that it do pass, without amendment.

STATEMENT

In explanation of the provisions of the bill, there is shown a portion of the report of this committee on S. 2152, originally reported. The only change in the bill, S. 2282, is the substitution of the wording "Western Hemisphere" in lieu of the wording "United States" in various places throughout the bill, in order to carry out the policy on the part of both the Departments of State and Agriculture in connection with the rubber program, especially on account of this emergency.

(A portion of the committee report on S. 2152 follows:)

PROVISIONS OF THE BILL

The first section of the bill authorizes the Secretary of Agriculture, in general, to acquire the right to operate under patents and processes relating to the growing and harvesting of guayule and the extraction of rubber therefrom and to obtain the properties, processes, records, and data necessary to such operation. This section also authorizes the Secretary to plant, or contract for the planting of, a maximum of 75,000 acres of guayule in the United States for the purpose of maintaining a nucleus planting of guayule to serve as a domestic source of crude rubber and to provide planting material for further expansion to meet emergency needs of the United States.

In addition, the Secretary is authorized to purchase land for nurseries and as sites for factories for processing guayule. The committee believes that purchase of land should be limited to such purposes and that the land to be planted to

the guayule shrub, other than the land purchased from the Intercontinental Rubber Co., should be leased for a period of not to exceed 10 years. There are included provisions for authorizing the Secretary to purchase necessary equipment, to construct and operate, or to contract for constructing and operating, processing plants for the extraction of rubber from guayule, and broad authority is given for experimentation with a view to improving the rubber yield of guayule and the manufacturing processes in which guayule is used.

Provisions have been inserted in the bill to authorize the Secretary to pay not in excess of \$2,000,000 to the Intercontinental Rubber Co. for its properties, real and personal, in California, and for the rights to operate under patents and processes concerning guayule planting, cultivation, and processing owned or controlled by the company. Testimony before the committee revealed, that, unless the project authorized by the bill is to be delayed several years, immediate arrangements must be made to acquire approximately 23,000 pounds of seed of an improved strain of guayule now owned by the company and to secure the data, processes, patents, equipment, and other facilities of the company. This company has been experimenting for many years with domestic cultivation of guayule and, at the present time, is the sole source of the seed of improved varieties for domestic cultivation and has an experiment station of considerable size, including a nursery, growing shrub, and a processing factory in Salinas Valley, Calif. The bill authorizes the purchase of the property of the company in California, but not the real estate of the company in Arizona, which does not appear to be of material worth for guayule production.

The committee realize that it is difficult to appraise the value of the company's assets for the purpose of purchase, especially in the present emergency. Under normal conditions, it appears that the commercial value of these assets would probably be a great deal less than the amount authorized in the bill. However, in view of the present critical situation with respect to rubber supplies, the assets of the company, especially the seed and the processes developed by the company, take on increased values incapable of exact measurement. Accordingly, it seems to the committee, after considering the information presented to it, that as much as \$2,000,000 should be authorized for the purchase from Intercontinental Rubber Co.

In the first section of the bill, the committee have restricted the planting of guayule to the United States. The committee have also omitted provisions for condemnation of interests in land, since it would seem that specific authority for condemnation is unnecessary under general principles of law applicable to acquisition of interests in land by the United States.

The Secretary is also authorized to exercise, with respect to rubber-bearing plants other than guayule, the same powers as are granted with respect to guayule. Under this provision of the bill, experimentation work can be engaged in with respect to rubber-bearing plants, in addition to guayule, and rubber-bearing wild shrubs and plants can be transported to and processed in the factories used for extracting rubber from guayule.

Section 2 of the bill authorizes the Secretary to appoint employees without regard to the provisions of civil-service laws and the Classification Act of 1923. Through the provisions of this section, persons, including Mexicans, who have had long experience with the domestic cultivation of guayule by the International Rubber Co., can be employed.

The remaining provisions of this section authorize the Secretary to utilize other agencies of the Government and to allot funds to bureaus or agencies of the Department of Agriculture and to agencies of the State and Federal Governments called upon to assist in carrying out the bill.

Section 3 of the bill authorizes the appropriation of such funds as may be necessary and sets up a revolving fund for the purpose of carrying out the bill.

○

Pub. No. 472

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77TH CONGRESS
2D SESSION

S. 2282

[Report No. 1839]

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 23, 1942

Referred to the Committee on Agriculture

FEBRUARY 27, 1942

Committed to the Committee of the Whole House on the state of the Union
and ordered to be printed

AN ACT

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture (hereinafter called the
4 “Secretary”) is authorized—

5 (1) To acquire by purchase, license, or other agree-
6 ment, the right to operate under processes or patents relating
7 to the growing and harvesting of guayule or the extraction
8 of rubber therefrom, and such properties, processes, records,
9 and data as are necessary to such operation, including but
10 not limited to any such rights owned or controlled by the

1 Intercontinental Rubber Company, or any of its subsidiaries,
2 and all equipment, materials, structures, factories, real prop-
3 erty, seed, seedlings, growing shrub, and other facilities,
4 patents and processes of the Intercontinental Rubber Com-
5 pany, or any of its subsidiaries, located in California, and for
6 such rights, properties, and facilities of the Intercontinental
7 Rubber Company or any of its subsidiaries, the Secretary is
8 authorized to pay not to exceed \$2,000,000;

9 (2) To plant, or contract for the planting of, not in
10 excess of seventy-five thousand acres of guayule in areas in
11 the Western Hemisphere where the best growth and yields
12 may be expected in order to maintain a nucleus planting
13 of guayule to serve as a domestic source of crude rubber as
14 well as of planting material for use in further expanding
15 guayule planting to meet emergency needs of the United
16 States for crude rubber; to establish and maintain nurseries to
17 provide seedlings for field plants; and to purchase necessary
18 equipment, facilities, and land for nurseries;

19 (3) To acquire by lease, or other agreement, for not
20 exceeding ten years, rights to land for the purpose of making
21 plantings of guayule; to make surveys, directly or through
22 appropriate Government agencies, of areas in the Western
23 Hemisphere where guayule might be grown; and to establish
24 and maintain records indicating areas to which guayule cul-
25 tivation could be extended for emergency production;

1 (4) To construct or operate, or to contract for the opera-
2 tion of, factories for the extraction of rubber from guayule,
3 and from *Chrysothamnus*, commonly known as rabbit brush;
4 and to purchase, operate, and maintain equipment for the
5 harvesting, storing, transporting, and complete processing of
6 guayule, and *Chrysothamnus*, commonly known as rabbit
7 brush, and to purchase land as sites for processing plants;

8 (5) To conduct studies, in which he may cooperate with
9 any other public or private agency, designed to increase the
10 yield of guayule by breeding or by selection, and to improve
11 planting methods; to make surveys of areas suitable for cul-
12 tivating guayule; to make experimental plantings; and to
13 conduct agronomic tests;

14 (6) To conduct tests, in which he may cooperate with
15 any other public or private agency, to determine the quali-
16 ties of rubber obtained from guayule and to determine the
17 most favorable methods of compounding and using guayule
18 in rubber manufacturing processes;

19 (7) To improve methods of processing guayule shrubs
20 and rubber and to obtain and hold patents on such new
21 processes;

22 (8) To sell guayule or rubber processed from guayule
23 and to use funds so obtained in replanting and maintaining
24 an area of seventy-five thousand acres of guayule inside
25 the Western Hemisphere; and

1 (9) To exercise with respect to rubber-bearing plants
2 other than guayule the same powers as are granted in the
3 foregoing provisions of this section with respect to guayule.

4 SEC. 2. (a) The Secretary is authorized to appoint
5 such employees, including citizens of countries in the West-
6 ern Hemisphere, as may be necessary for carrying out the
7 provisions of this Act. Such appointments may be made
8 without regard to the provisions of the civil-service laws,
9 and the compensation of the persons so appointed may be
10 fixed without regard to the provisions of the Classification
11 Act of 1923, as amended. All appointments so made by
12 the Secretary shall be made only on the basis of merit and
13 efficiency.

14 (b) The Secretary may delegate any of the powers and
15 duties conferred on him by this Act to any agency or
16 bureau of the Department of Agriculture.

17 (c) The Secretary, with the consent of any board,
18 commission, independent establishment, corporation, or exec-
19 utive department of the Government, including any field serv-
20 ice thereof, may avail himself of the use of information,
21 services, facilities, officers and employees thereof, in carry-
22 ing out the provisions of this Act.

23 (d) The Secretary may allot to bureaus and offices of
24 the Department of Agriculture, or may transfer to such other
25 agencies of the State and Federal Governments as may be

1 requested by him to assist in carrying out this Act, any funds
2 made available to him under this Act.

3 SEC. 3. There are authorized to be appropriated such
4 amounts as may be necessary to carry out the provisions of
5 this Act. Any amounts so appropriated, and any funds
6 received by the Secretary under this Act, shall remain per-
7 manently available for the purposes of this Act without re-
8 gard to the provisions of any other laws relating to the
9 availability and disposition of appropriated funds and the
10 disposition of funds collected by officers or agencies of the
11 United States.

Passed the Senate February 19, 1942.

Attest:

EDWIN A. HALSEY,

Secretary.

77TH CONGRESS
2^D SESSION

S. 2282

[Report No. 1839]

AN ACT

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

FEBRUARY 23, 1942

Referred to the Committee on Agriculture

FEBRUARY 27, 1942

Committed to the Committee of the Whole House on the state of the Union and ordered to be printed

Feb. 28

shrapnel was found all over the place, and much confusion was caused. We think the Secretary of the Navy and the Secretary of War should get together and issue a joint statement which will tell the whole truth.

[Here the gavel fell.]

STRIKES IN DEFENSE INDUSTRIES

Mr. LUTHER A. JOHNSON. Mr. Speaker, I ask unanimous consent to address the House for 1 minute, and to revise and extend my remarks and include excerpts from certain letters I have received.

The SPEAKER. Is there objection to the request of the gentleman from Texas? There was no objection.

[Mr. LUTHER A. JOHNSON addressed the House. His remarks will appear hereafter in the Appendix.]

TEACHING OF SPANISH AND PORTUGUESE IN THE PUBLIC SCHOOLS

Mr. RABAUT. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Michigan?

There was no objection.

Mr. RABAUT. Mr. Speaker, among other things the Subcommittee on Appropriations for the Department of State, after its visit to South and Central America last summer, recommended the teaching of a second language, either Spanish or Portuguese, in the elementary schools of this country. On page 29, of our report of December 4, 1941, is the following:

One of the greatest deterrents to world peace has been the inability of peoples throughout the world to exchange ideas through the medium of a common language. Fortunately our citizens are beginning to awaken to this fact with the result that today Spanish and Portuguese courses are being given in ever-increasing numbers throughout the entire country. The committee feels so strongly on this subject that if it had it in its power it would insist that either Spanish or Portuguese be made a compulsory subject in all of our elementary schools throughout the United States.

I am very happy at this time to tell you that I have received the following letter from Charles A. Thomson, Chief of the Division of Cultural Relations of the Department of State:

I know you will be interested to learn that 80,000 boys and girls, representing 275 school districts in Texas, began the study of Spanish in the elementary grades on February 1, 1942. The Department of Education of Texas has added Spanish to the curriculum for all grades from the third to the seventh, and has issued free textbooks for the students.

This is action in the right direction for solidarity of the Western Hemisphere.

[Here the gavel fell.]

GUAYULE RUBBER

Mr. FLANNAGAN. Mr. Speaker, I ask unanimous consent for the present consideration of the bill S. 2282, to provide for the planting of guayule and other rubber-bearing plants so as to make available a source of crude rubber for emergency and defense uses.

The SPEAKER. Is there objection to the present consideration of the bill?

Mr. MARTIN of Massachusetts. Mr. Speaker, I reserve the right to object in order to ask the gentleman from Virginia to explain the purposes of the bill.

Mr. FLANNAGAN. Mr. Speaker, as the gentleman knows, this is the Senate bill that came up in the House some days ago. The House made some amendments, among them being an amendment confining the operations under the bill to the United States, and sent it back to the Senate. The Senate accepted all of the House amendments. The President vetoed the bill because of the House amendment limiting the operations under the bill to the United States. The Senate, following the recommendation made by the President in his veto message, eliminated the restrictive House amendment and made the bill applicable to the Western Hemisphere. The bill then came up before the Agricultural Committee and the committee accepted the Senate amendment. The only change made in the bill as heretofore passed by the House is the provision broadening the operations under the bill to the Western Hemisphere.

Mr. MARTIN of Massachusetts. Then, as the bill stands now, it applies to the Western Hemisphere?

Mr. FLANNAGAN. As it stands now it applies to the Western Hemisphere. That is the only change in the House bill. This bill came before the Committee on Agriculture yesterday and was reported out by that committee with that change. There seems to be need for speedy action, as those interested are very anxious for the immediate passage of the bill.

Mr. MARTIN of Massachusetts. What other countries are they contemplating raising guayule in?

Mr. FLANNAGAN. The guayule is a native plant of New Mexico. The State Department explains that the sole purpose of putting in the words "Western Hemisphere" was to enable the Government, if it saw fit, to cultivate the guayule shrub in Mexico close to the Texas border.

Mr. MARTIN of Massachusetts. Does the gentleman think that this plant would grow better there than in the United States?

Mr. FLANNAGAN. I do not. I believe it can be cultivated in continental United States better than in Mexico; but the bill gives the Department of Agriculture that right.

Mr. HOPE. Mr. Speaker, I reserve the right to object. I am not going to object, because I don't want to take the responsibility of doing anything to hinder the final enactment of this legislation. However, I feel that the veto of the former bill was not justified, and at this time I am very much in doubt as to whether we should enact legislation which does not limit the production of this plant to the United States. I say that because Mexico, which is the only other country in which I understand we will attempt to produce guayule, has placed an embargo on the export of rubber. This went into effect on the 17th of February, so I am informed by the Department of Commerce. I hope that while this bill does permit the Department of Agriculture to go into Mexico and bring about the culti-

vation of guayule in that country, that this will not be done as long as we have a situation where it is not possible to bring rubber into this country from Mexico.

Mr. FLANNAGAN. I think the gentleman realizes that the purpose of the State Department and the Department of Agriculture is to devote their efforts to the United States.

The SPEAKER. Is there objection to the present consideration of the bill?

Mr. COCHRAN. Mr. Speaker, I reserve the right to object to ask the gentleman from Virginia [Mr. FLANNAGAN] if the Senate in accepting the House amendments struck out the word "condemnation" and deprived the Government of the right to condemn, and also if the same provision is in the bill which fails to state any definite amount as to the authorization, but makes the sky the limit, which are two objections I made to the phraseology of the bill when it was considered on the floor of the House.

Mr. FLANNAGAN. The Senate passed the bill which was sent over by the House with a single change of striking out the words "United States" and inserting in lieu thereof the words "Western Hemisphere."

Mr. COCHRAN. I am in the same position as the gentleman from Kansas [Mr. HOPE]. I do not want to stop any legislation that is needed as a war measure, but I repeat what I said several days ago. The language in the bill is highly objectionable and the Senate and the House of Representatives should never have passed it in that form. I am not going to object, but I want the Record to show I do object to the language in the bill, as I expressed myself on the floor of the House when the bill was under consideration in the House. I do not feel, even if you deny the Government the right to condemn in this bill, it will amount to anything, because in so doing you are setting aside a constitutional provision, and we cannot amend the Constitution on the floor of the House and Senate.

Mr. RICH. Mr. Speaker, I reserve the right to object to ask this of the gentleman: In speaking, first, of developing lands in Mexico, naturally we would have to have the State Department cooperate with the Mexican Government, to develop those lands, would we not?

Mr. FLANNAGAN. Yes.

Mr. RICH. How much investigation has been made to determine whether we are now able to get lands in this country which, under proper irrigation, could grow that plant?

Mr. FLANNAGAN. May I say to the gentleman from Pennsylvania that Dr. Brandeis, who has charge of the matter for the Department of Agriculture, states that sufficient land can be found in continental United States.

Mr. RICH. That is the point I wanted to make. We are here to develop American soil insofar as we possibly can and help the American farmers.

Mr. FLANNAGAN. I agree thoroughly with the gentleman.

The SPEAKER. Is there objection to the request of the gentleman from Virginia?

There being no objection, the Clerk read the bill, as follows:

Be it enacted, etc., That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, the right to operate under processes or patents relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation, including but not limited to any such rights owned or controlled by the Intercontinental Rubber Co., or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents and processes of the Intercontinental Rubber Co., or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Co. or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000;

(2) To plant, or contract for the planting of, not in excess of 75,000 acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment, facilities, and land for nurseries;

(3) To acquire by lease, or other agreement, for not exceeding 10 years, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the Western Hemisphere where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factor's for the extraction of rubber from guayule, and from *Chrysanthamnus*, commonly known as rabbit brush; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule, and *Chrysanthamnus*, commonly known as rabbit brush, and to purchase land as sites for processing plants;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of 75,000 acres of guayule inside the Western Hemisphere; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule.

SEC. 2. (a) The Secretary is authorized to appoint such employees, including citizens of countries in the Western Hemisphere, as may be necessary for carrying out the provisions of this act. Such appointments may be made without regard to the provisions of

the civil-service laws and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments so made by the Secretary shall be made only the basis of merit and efficiency.

(b) The Secretary may delegate any of the powers and duties conferred on him by this act to any agency or bureau of the Department of Agriculture.

(c) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers and employees thereof, in carrying out the provisions of this act.

(d) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this act, any funds made available to him under this act.

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this act. Any amounts so appropriated, and any funds received by the Secretary under this act, shall remain permanently available for the purposes of this act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

Mr. ANDERSON of California. Mr. Speaker, approval today of the guayule-rubber bill now under consideration marks the completion of a long but successful effort to interest the Federal Government in the production of rubber from the guayule shrub. It has been almost 2 years since I first called the attention of the House of Representatives to the potentialities that exist in this desert plant. Many obstacles have been encountered, but all of these have finally been overcome, including the objections raised by the President in his veto message on the original guayule bill. Now that these latter objections have been met, I anticipate that the President will approve the measure without undue delay.

I am firmly convinced that this legislation will be of material value in developing one of the most important natural resources in the United States. Guayule offers a practical, proven source of rubber which, within a few years' time, should largely offset the loss of our present supply of hevea rubber.

It is extremely unfortunate that misleading articles and statements have appeared from time to time with reference to the guayule development program. Members of the House are to be congratulated for having ignored the misrepresentations and for having voiced approval of the program as outlined in the pending measure. This bill would not have been passed by the Senate nor approved by the House of Representatives if it had not been for the valuable aid which I was given by many interested Members on both sides of the aisle. I wish to take this opportunity to thank all of those whose untiring efforts have resulted in bringing the guayule project to the floor of the House for consideration.

I am not of the opinion that this is simply an emergency program that should be terminated when the war is

over. We would be short-sighted, indeed, if we failed to continue to produce a sizable percentage of our annual rubber needs and sufficient guayule nursery stock to insure against another such rubber shortage as we are faced with at the present time. Nine months have elapsed since my original guayule-rubber bill was introduced in the House of Representatives and referred to the Committee on Agriculture. Fortunately, there is still sufficient time left to plant all of the available guayule seed this spring, which will make it possible to vastly expand this entire program in 1943.

Once again I wish to congratulate the membership of the House for the favorable action taken on the bill under consideration and to express my gratitude for the splendid support that the entire program has received.

The bill was ordered to be read a third time, was read the third time, and passed, and a motion to reconsider was laid on the table.

EXTENSION OF REMARKS

Mr. ANDERSON of California, by unanimous consent, was granted permission to extend his own remarks.

Mr. DITTER. Mr. Speaker, I ask unanimous consent to extend my own remarks.

The SPEAKER. Without objection, it is so ordered.

There was no objection.

[The matter referred to appears in the Appendix.]

CALL OF THE HOUSE

Mr. SWEENEY. Mr. Speaker, because I consider the pending legislation of such importance, I make the point of order that a quorum is not present.

The SPEAKER. Evidently a quorum is not present.

Mr. McCORMACK. Mr. Speaker, I move a call of the House.

A call of the House was ordered.

The Clerk called the roll, and the following Members failed to answer to their names:

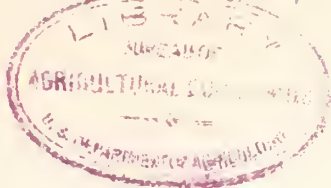
[Roll No. 31]

Anderson, N. Mex.	Gifford	Osmer
Arnold	Gillette	O'Toole
Baldwin	Green	Paddock
Barnes	Holmes	Reece, Tenn.
Bender	Hook	Rivers
Blackney	Houston	Rodgers, Pa.
Buck	Jarrett	Sacks
Buckley, N. Y.	Jensen	Schaefer, Ill.
Burdick	Johnson	Scott
Byrne	Lyndon B.	Shannon
Byron	Kennedy	Sheridan
Clason	Michael J.	Simpson
Cole, Md.	Kieberg	Smith, Pa.
Copeland	Kopplemann	Sparkman
Creal	Kramer	Stefan
Curtis	Landis	Tenerowicz
Disney	Lane	Thomas, N. J.
Domengeaux	Lesinski	Tolan
Douglas	Ludlow	Traynor
Eaton	Maas	Vreeland
Fish	Magnuson	Walter
Gavagan	Norton	West
Gearhart	O'Day	Woodruff, Mich.
	O'Hara	Worley

The SPEAKER. On this roll call, 362 Members have answered to their names, a quorum.

Mr. COOPER. Mr. Speaker, I move to dispense with further proceedings under the call.

The motion was agreed to.



[PUBLIC LAW 473—77TH CONGRESS]

[CHAPTER 140—2D SESSION]

[S. 2282]

AN ACT

To provide for the planting of guayule and other rubber-bearing plants and to make available a source of crude rubber for emergency and defense uses.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture (hereinafter called the "Secretary") is authorized—

(1) To acquire by purchase, license, or other agreement, the right to operate under processes or patents relating to the growing and harvesting of guayule or the extraction of rubber therefrom, and such properties, processes, records, and data as are necessary to such operation, including but not limited to any such rights owned or controlled by the Intercontinental Rubber Company, or any of its subsidiaries, and all equipment, materials, structures, factories, real property, seed, seedlings, growing shrub, and other facilities, patents and processes of the Intercontinental Rubber Company, or any of its subsidiaries, located in California, and for such rights, properties, and facilities of the Intercontinental Rubber Company or any of its subsidiaries, the Secretary is authorized to pay not to exceed \$2,000,000;

(2) To plant, or contract for the planting of, not in excess of seventy-five thousand acres of guayule in areas in the Western Hemisphere where the best growth and yields may be expected in order to maintain a nucleus planting of guayule to serve as a domestic source of crude rubber as well as of planting material for use in further expanding guayule planting to meet emergency needs of the United States for crude rubber; to establish and maintain nurseries to provide seedlings for field plants; and to purchase necessary equipment, facilities, and land for nurseries;

(3) To acquire by lease, or other agreement, for not exceeding ten years, rights to land for the purpose of making plantings of guayule; to make surveys, directly or through appropriate Government agencies, of areas in the Western Hemisphere where guayule might be grown; and to establish and maintain records indicating areas to which guayule cultivation could be extended for emergency production;

(4) To construct or operate, or to contract for the operation of, factories for the extraction of rubber from guayule, and from *Chrysothamnus*, commonly known as rabbit brush; and to purchase, operate, and maintain equipment for the harvesting, storing, transporting, and complete processing of guayule, and *Chrysothamnus*, commonly known as rabbit brush, and to purchase land as sites for processing plants;

(5) To conduct studies, in which he may cooperate with any other public or private agency, designed to increase the yield of guayule by breeding or by selection, and to improve planting methods; to

make surveys of areas suitable for cultivating guayule; to make experimental plantings; and to conduct agronomic tests;

(6) To conduct tests, in which he may cooperate with any other public or private agency, to determine the qualities of rubber obtained from guayule and to determine the most favorable methods of compounding and using guayule in rubber manufacturing processes;

(7) To improve methods of processing guayule shrubs and rubber and to obtain and hold patents on such new processes;

(8) To sell guayule or rubber processed from guayule and to use funds so obtained in replanting and maintaining an area of seventy-five thousand acres of guayule inside the Western Hemisphere; and

(9) To exercise with respect to rubber-bearing plants other than guayule the same powers as are granted in the foregoing provisions of this section with respect to guayule.

SEC. 2. (a) The Secretary is authorized to appoint such employees, including citizens of countries in the Western Hemisphere, as may be necessary for carrying out the provisions of this Act. Such appointments may be made without regard to the provisions of the civil-service laws, and the compensation of the persons so appointed may be fixed without regard to the provisions of the Classification Act of 1923, as amended. All appointments so made by the Secretary shall be made only on the basis of merit and efficiency.

(b) The Secretary may delegate any of the powers and duties conferred on him by this Act to any agency or bureau of the Department of Agriculture.

(c) The Secretary, with the consent of any board, commission, independent establishment, corporation, or executive department of the Government, including any field service thereof, may avail himself of the use of information, services, facilities, officers and employees thereof, in carrying out the provisions of this Act.

(d) The Secretary may allot to bureaus and offices of the Department of Agriculture, or may transfer to such other agencies of the State and Federal Governments as may be requested by him to assist in carrying out this Act, any funds made available to him under this Act.

SEC. 3. There are authorized to be appropriated such amounts as may be necessary to carry out the provisions of this Act. Any amounts so appropriated, and any funds received by the Secretary under this Act, shall remain permanently available for the purposes of this Act without regard to the provisions of any other laws relating to the availability and disposition of appropriated funds and the disposition of funds collected by officers or agencies of the United States.

Approved, March 5, 1942.

Pale. Low 474

